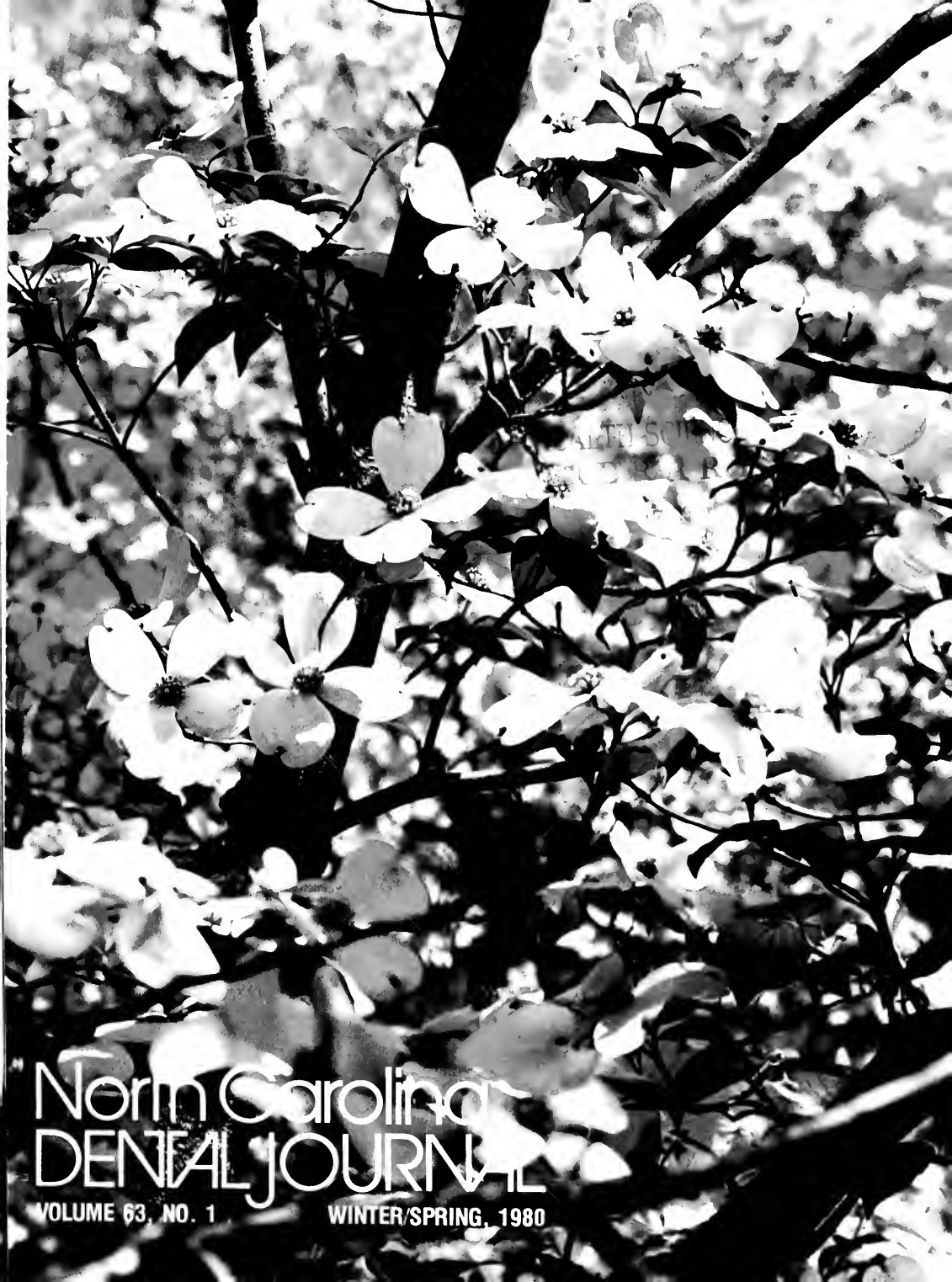

North Carolina DENTAL JOURNAL

VOLUME 63, NO. 1 WINTER/SPRING, 1980

PRESERVATION

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R.P.-I BAR CONCEPT OF DESIGN MEETS TODAY'S NEED FOR . .

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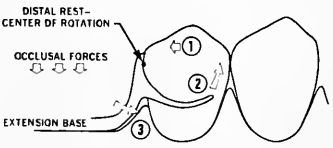
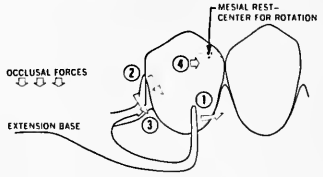


POTENTIAL "TILTING" ACTION OF MANY CLASP DESIGNS WITH DISTAL RESTS

1. Occlusal forces tend to tilt abutment tooth distally.
2. Clasp tip is forced against undercut.
3. The distal gingival tissues are impinged.



POTENTIAL "TILTING" ACTION IS PREVENTED WITH THIS DESIGN CONCEPT

1. "I" clasp arm disengages tooth under occlusal force.
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4. Occlusal forces tend to tilt abutment tooth anteriorily.

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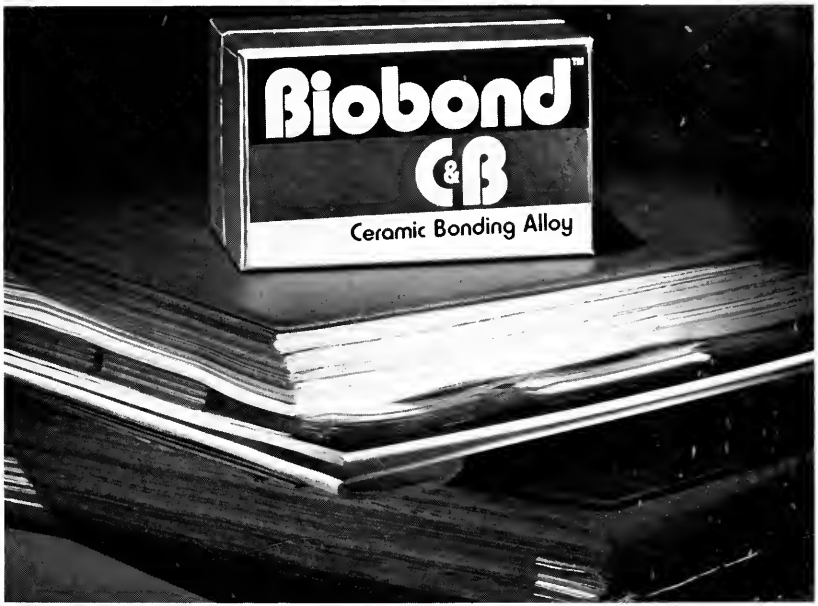

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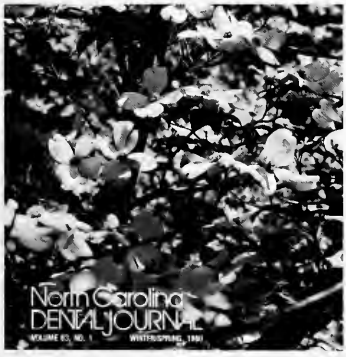


ABOUT THE COVER

The harsh memories of winter seem to melt away with our first sight of a dogwood in full bloom. Spring is a time of new life and reawakening. Join the North Carolina Dental Society in Winston-Salem as we begin a new decade at the 124th Annual Session. Cover photo by Jeffrey P. Mazza.

North Carolina DENTAL JOURNAL

Contents

VOLUME 63, NO. 1 WINTER/SPRING, 1980

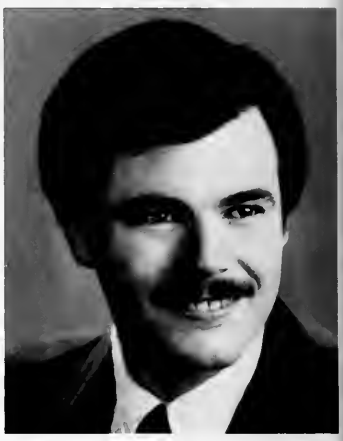
The NORTH CAROLINA DENTAL JOURNAL is published semi-annually — winter-spring and summer-autumn by the North Carolina Dental Society, 2414 Wycliff Road, Raleigh, N.C. 27607. Closing dates are February 1 and July 1. Subscription rate $4 a year; single copies $2. Third class postage paid at Raleigh, N.C. 27602. Non-profit organization permit #418. The Journal is printed by Edwards & Broughton Company, P.O. Box 27286, Raleigh, N.C.

Manuscripts for publication should be sent to: N.C. Dental Society, 2414 Wycliff Rd., Raleigh, N.C. 27607. Manuscripts should be typed on one side of 8½ x 11 paper, double spaced and with liberal margins.

Expressions of opinion and statements of supposed fact are the author's and should not be regarded as views of the North Carolina Dental Society.

EDITORIAL

Support Your Local Team



Jeffrey P. Mazza

Now the lines have been drawn in the battle over "hygienistry," and dentists are reading statements in the dental press about expanded duties and independent practice for dental hygienists. Why are the two primary care providers of the dental team suddenly at odds over these issues? Who will benefit if hygienists can separate themselves and practice without supervision? Before our state legislature votes to change our dental practice act, we should discuss these important issues among ourselves and with hygienists so that a united voice can speak for dentistry and the interests of our patients.

The Governmental Evaluation Commission, better known as the Sunset Commission, has reviewed the Board of Dentistry in North Carolina, and it has recommended changes in the Dental Practice Act and the Dental Hygiene Practice Act that could alter the way dentistry is practiced in our state. Among these changes are provisions that could eventually lead to independent practice by dental hygienists. Since only a few independently-practicing hygienists exist in our country at this time, it seems prudent to consider what effects such a practice arrangement would have on patient care and on the relationships among dentists and their auxiliaries in the dental team as it now exists.

Ideally the team approach gives the dental patient an opportunity to have excellent care efficiently rendered in one treatment facility. Under current law, each patient must be checked by the dentist at every appointment with the dental hygienist, ensuring that two dental professionals will have examined the patient each time the hygienist provides prophylaxis, or "preventive periodontal care," as it is often termed.

Since there are some dentists who do not routinely check their hygiene patients, both hygienists and some Sunset Commission members raise the question of whether such direct supervision is necessary. Some then say that independent hygiene practice would not compromise the quality of care. Aside from judgments about the validity of that argument, aren't there some good reasons for keeping our dental team intact?

A joint committee of the ADA and the American Dental Hygienists' Association (ADHA) prepared a report for presentation at an open hearing during the 1979 ADA Annual Meeting in Dallas. A section of that report describes the optimal relationship between dental hygienists and dentists.

> The relationship between dentists and dental hygienists is conceptualized as a cooperative effort to provide total oral health care for the patient. The cooperation that exists between dentists and dental hygienists is characterized as the consulting, deliberating, conferring and advising that take place between the dentist and the dental hygienist in providing care for the patient. The cooperative relationship that has traditionally existed between the dentist and the dental hygienist should be strengthened and perpetuated.

Hygienists and dentists can learn from each other, growing professionally as they share the daily responsibilities of treating patients. What dentist has not had his hygienist detect a carious lesion or periodontal pocket that he missed during his examination? And conversely, isn't the patient best served when the dentist finds missed calculus at the time of prophylaxis? And what about radiographs — how could the patient receive the best dental radiology service if the dentist were not available to decide on and interpret needed x-rays?

These questions may seem to have obvious answers, but they are meant instead to promote discussion of important issues for dentists and hygienists. At the open hearing during the ADA meeting in Dallas, many loud and angry speakers from both sides argued for and against independent practice for dental hygienists, among other issues. The burden is on those dental hygienists and dentists who favor independent dental hygiene practice to demonstrate that such a change is in the best interest of our patients.

Often economic concerns are raised as another reason to allow hygienists to open their own offices, as a way of determining more directly their own incomes. Some hygienists claim they are underpaid and overworked by their dentist-employers, and hygienists feel pressure to see too many patients when longer appointments would allow better treatment and more time for patient education. Dentists counter that hygienists would open "cleaning parlors" in their homes, much as beauticians sometimes do. Perhaps these arguments are valid, but their relationship to the need for independent hygiene practice is unclear.

So talk to your hygienist now, before hygienists make up their own mind that independent practice is worth fighting for in our state legislature. Make your dental team a pleasant and productive relationship for the benefit of patient, dentist and auxiliaries. Listen to your dental hygienist's concerns about appointment times, salary, standards of care, and be prepared to give and take with the best interests of your patients always in mind. Independent practice for dental hygienists does not exist within the law in North Carolina, but our state legislature has the power to give hygienists that privilege. Is such a change what you think is best for your patients? You can work with your local team to have political clout through your professional organizations and through personal and patient relationships with state legislators (and Sunset Commission members!) What better time than now to support your local team?

PRESIDENT'S REPORT

DILEMMA

Robert J. Shankle

One would expect to find credibility at the same place that you get *sparkle and dazzle*. We think it is there in most instances but does the public perceive it so? Some national polls are very favorable to dentistry and accord us in a high position relative to other professions. It is obvious that one of the prime objectives in the years ahead would be to retain that element of credibility.

The North Carolina Dental Manpower Study revealed our preventive dentistry efforts against dental caries to be effective and that our next preventive goal should be in the area of periodontal disease. The swell of dental manpower in the next few years may very well exceed the demand for dental services, leaving many dentists with idle time, surrounded by this widespread need for services.

Now the General Accounting Office claims that the use of auxiliaries to complete restorative procedures would enable additional patients to be treated. The Federal Trade Commission praises this congressional arm of the federal government for its report. Who will these providers of dental health service treat if there is no demand for their services? How effective would they be in the improvement of dental health? Shall we discharge our goals of excellence in dental health care and settle for mediocrity as we have done in so many aspects of today's productions, life, society, and government?

In summary, the federal government apparently intends to increase the production of dental health care delivery through auxiliaries beyond where it is requested or demanded by the public. This may be done without any thought on government's part towards education of the public to its real dental health care needs.

All of this transfers to the dental profession the responsibility of educating the public, or increasing the demand factor.

President Carter has vetoed the bonus legislation for military doctors which will drive about one-third of our present doctors out of the military service. The attitude of government towards the health care professions again shows through.

The bottom line is as usual — government is SNAFU when it comes to minding other people's business with a productive result.

While back at home there is the usual peanut gallery of conscientious objectors in the North Carolina Dental Society complaining about the ADA and NCDS efforts to convert need into demand through institutional advertising. Also, the North Carolina Dental Society's efforts towards studying Independent Practice Associations and other alternative supportive financing for dental services is being sniped. Will we ever get our guns pointed in the same direction instead of at each other?

Converting need to demand and finding support for providing these services should be a reasonable answer to the present dilemma.

Two hundred dollars (or more) invested by each one of us annually in institutional advertising could very well help fill thousands of dollars in open time on the appointment books. This isn't a bad investment, particularly when we consider that it is secondary to the primary benefit of better dental health care for all North Carolinians. Of course, we can sit on our hands and complain about the present situations and nothing will be accomplished.

On the brighter side, the response to HELP has been gratifying. Volunteers to help in a variety of ways, are coming forth from all over the state. The primary mission of HELP is beginning to be addressed. It appears that the North Carolina Dental Society's response to the well being of some of our colleagues' health is strong. Society will benefit as well as the individuals and their families who are more directly affected.

To maintain credibility in the years ahead requires many efforts, from all of us, on all fronts. We will have dilemmas from time to time, but we have the resources to deliver us from each of these quandaries if we will utilize them. We *must* do it and maintain credibility.

ROBERT J. SHANKLE, D.D.S.
Chapel Hill

NORTH CAROLINA DENTAL SOCIETY

124TH ANNUAL SESSION

MAY 11-13, 1980

BENTON CONVENTION CENTER/HYATT REGENCY HOTEL, WINSTON-SALEM, NC

SCHEDULE OF EVENTS

SUNDAY, MAY 11, 1980

9:00 a.m.-12:00 noon	Tennis Tournament, Tanglewood Park
9:30 a.m.	Ten Kilometer Road Race & One Mile Fun Run Tanglewood Park
10:00 a.m.-12:00 noon	Golf Tournament Tanglewood Golf Course
11:00 a.m.-5:00 p.m.	NCDS Registration BCC, Lower Galleria
12:30 p.m.	American College of Dentists Luncheon HRH, Regency IV
1:30 p.m.-3:00 p.m.	Winston-Salem Dental Care Plan, Inc. Tour
3:00 p.m.-4:30 p.m.	Private Office Tours (List and map available at NCDS Registration Desk)
2:00 p.m.-3:00 p.m.	Scientific Session BCC, Main Hall, Section 2 Benjamin W. Brown, D.D.S. "Bleaching of Vital Teeth"
3:00 p.m.	Hotel Check-In*
3:00 p.m.-4:00 p.m.	Scientific Session BCC, Main Hall, Section 2 Mark D. Currin, C.D.T. "Characterized Staining in the Mouth"
3:00 p.m.-5:00 p.m.	Scientific Session BCC, Main Hall, Section 1 Joe H. Camp, D.D.S. "Pulpal Considerations in the Management of Traumatic Injuries"
4:00 p.m.	NCD-PAC Board Meeting BCC, Lower Level, Conference Rms. 3 & 4
5:00 p.m.-6:00 p.m.	First General Session BCC, Main Hall, Section 2 —Invocation —Memorial Service —Recognition of Officers —Recognition of Guests —Award Presentations —Nomination of NCDS Officers, 1980-81
6:00 p.m.-7:00 p.m.	Social Hour Honoring Dental Auxiliary HRH, Fourth Floor Terrace
6:30 p.m.	Emory University School of Dentistry Social Hour Dr. Charles Waldron's Suite
7:00 p.m.	Dinner at your Pleasure

*Note on Hotel Check-In: The official check-in time for the Hyatt Regency Hotel is 3:00 p.m. The hotel has advised that *some* rooms may be available before this time, however, guests should *not* plan to check in until 3:00 p.m. If you arrive earlier, facilities will be available to store your baggage.

Note: BCC = Benton Convention Center
HRH = Hyatt Regency Hotel

MONDAY, MAY 12, 1980

7:00 a.m.	District Officers Conference Breakfast HRH, Granville Suite
8:00 a.m.	Commercial Exhibits Open BCC, Exhibit Hall NCDS Registration Desk Opens BCC, Lower Galleria
8:00 a.m.-10:00 a.m.	Scientific Session BCC, Main Hall, Section 1 H. Wayne Mohorn, D.D.S. "Endodontic Vitallium Implants and Intentional Replants" Scientific Session BCC, Main Hall, Section 2 J. Gary Maynard, D.D.S. & Richard D. Wilson, D.D.S. "Restorative Dentistry with Periodontal Considerations" Scientific Session BCC, Main Hall, Section 3 Ron Useldinger, M.A. "Fitness for Busy Dentists"
10:00 a.m.-12:00 noon	Second General Session BCC, Main Hall, Section 2 —Election of NCDS Officers, 1980-81 —Recognition of Guests and Reports
12:00 noon	International College of Dentists Luncheon HRH, Granville Suite
12:00 noon-2:00 p.m.	Lunch at your Convenience The Greenhouse Restaurant at the Hyatt Regency Hotel and the Snack Bar in the Lower Galleria of the Benton Convention Center will be open for lunch. Visit Your Commercial Exhibits
2:00 p.m.-4:00 p.m.	Scientific Session BCC, Main Hall, Section 3 Ron Useldinger, M.A. "Fitness for Busy Dentists" (Repeat of Morning Session)
2:00 p.m.-5:00 p.m.	Scientific Session BCC, Main Hall, Section 1 James A. Hyde, D.Min. "Marital Enrichment—An Alternative to Marital Erosion"
2:00 p.m.-5:30 p.m.	Scientific Session BCC, Main Hall, Section 2 J. Gary Maynard, D.D.S. & Richard D. Wilson, D.D.S. "Restorative Dentistry with Periodontal Considerations," Cont'd.
5:00 p.m.	Commercial Exhibits Close
5:30 p.m.-6:30 p.m.	College/Fraternity Social Hours Psi Omega — HRH, Davis Room Xi Psi Phi — HRH, Carolina Room Delta Sigma Delta — Granville, Zinzendorf and Winston Rooms Medical College of Virginia — Civic Room

Schedule of Events
Monday, May 12, 1980
Continued from page 6

6:00 p.m.-6:45 p.m.	NCDS "Preprandial" Mixer Regency Ballroom Lobby
6:30 p.m.	UNC Class of 1975 Reunion Dinner HRH, Fourth Floor Terrace
7:00 p.m.	Annual Banquet HRH, Regency Ballroom
9:00 p.m.	Entertainment and Dance HRH, Regency Ballroom Featuring the North Carolina School of the Arts Jazz Band

TUESDAY, MAY 13, 1980

7:00 a.m.	NCDS Past Presidents' Breakfast HRH, Granville Suite
7:00 a.m.	UNC Alumni Association Breakfast HRH, Regency III & IV
8:00 a.m.	Commercial Exhibits Open NCDS Registration Desk Opens BCC, Lower Galleria
8:00 a.m.-10:00 a.m.	Scientific Session BCC, Main Hall, Section 3 Henry A. Williams, D.D.S. "Practical Electrosurgery in Restorative Dentistry"
8:00 a.m.-11:00 a.m.	Scientific Session BCC, Main Hall, Section 1 James A. Hyde, D. Min. "Marital Enrichment — An Alternative to Marital Erosion" (Repeat of Previous Session)
10:00 a.m.-12:00 noon	Scientific Session BCC, Main Hall, Section 2 Larry Long "Business Considerations in Dental Practice"
10:00 a.m.-12:00 noon	Table and Projected Clinics BCC, Main Hall, Section 4
12:00 noon	Academy of General Dentistry Luncheon HRH, Regency III & IV
12:00 noon	Pierre Fauchard Academy Luncheon HRH, Lee Room
12:00 noon-2:00 p.m.	Lunch at your Convenience The Greenhouse Restaurant at the Hyatt Regency Hotel and the Snack Bar in the Lower Galleria of the Benton Convention Center will be open for lunch Visit Your Commercial Exhibits
2:00 p.m.-5:00 p.m.	Scientific Session BCC, Main Hall, Section 1 John M. Gregg, D.D.S. "Office Drugs and Pharmacology Update"
	Scientific Session BCC, Main Hall, Section 2 Larry Long "Business Considerations in Dental Practice," Cont'd.
	Scientific Session BCC, Main Hall, Section 3 J. Hart Long, Jr., D.D.S. "Fabrication of Precision Partials"
5:00 p.m.	Commercial Exhibits Close
5:00 p.m.	Third General Session BCC, Main Hall, Section 2 —Installation of Officers —Drawing for Door Prizes You Must Be Present to Win

SCIENTIFIC SESSIONS

Benjamin W. Brown

Benjamin W. Brown, D.D.S., M.S. is a graduate of and received an M.S. in Endodontics from UNC. A member of the American Association of Endodontists, Dr. Brown has served as Secretary-Treasurer, Vice President and President of the Tar Heel Endodontic Association and as President of the Raleigh-Wake County Dental Society. He is currently Secretary-Treasurer of the North Carolina Dental Society's Fourth District.

Sunday, May 11, 1980
2:00 p.m.-3:00 p.m.
Bleaching of Vital Teeth

This seminar is designed to give a cookbook approach to the useful procedure of bleaching discolored vital teeth. Background and rationale will be discussed. Preoperative considerations, technique, results and prognosis will be presented with slides to illustrate the procedure. A discussion with a question and answer period will be used to clarify any misunderstood steps or concepts.

Mark D. Currin, C.D.T. is a graduate of Durham Technical Institute and is certified in both crown and bridge and ceramics. With 15 years experience in dental laboratory technology, he owns Currin Crown and Bridge Laboratory. Mr. Currin was part owner of R.D.U. Laboratory and has taught at Durham Technical Institute for three years.

Mark D. Currin

Sunday, May 11, 1980
3:00 p.m.-4:00 p.m.
Characterized Staining in the Mouth

This lecture concerns staining in the

mouth of porcelain fused to metal crowns. Discussion to center on equipment, materials, color system and procedures. Special attention to be paid to shade selection for crowns to be stained in the mouth.

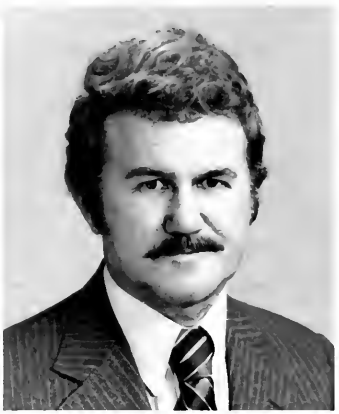
Joe H. Camp

Joe H. Camp, A.B., D.D.S., M.S.D. received his dental degree from UNC, a graduate degree in pedodontics from Indiana University and graduate education in endodontics at UNC. In private practice of endodontics in Charlotte, Dr. Camp is also part-time clinical Assistant Professor in the UNC Department of Endodontics. A member of numerous professional organizations, he has lectured extensively and contributed chapters to several textbooks.

Sunday, May 11, 1980
3:00 p.m.-5:00 p.m.
Pulpal Consideration in the Management of Traumatic Injuries

Much confusion exists in the area of the management of traumatic injuries. Among the factors responsible for this confusion are 1) conflicting reports in the literature regarding treatment; 2) literature based upon empiricism rather than scientific facts; 3) lack of teaching material for the student to gain experience while training; 4) conflicting modes of treatment among the different disciplines of dentistry. Because of this confusion, improper treatment is often rendered leading to the loss of countless teeth which otherwise might have been saved.

This slide and lecture presentation will include the treatment of fractured, subluxated and intruded teeth. Techniques to prevent pulpal necrosis will be emphasized. The minimization of root resorption and ankylosis by proper pulpal treatment and splinting following injury will be discussed in depth. Management of crown fractures, pulpal exposures and fractured roots will be included.



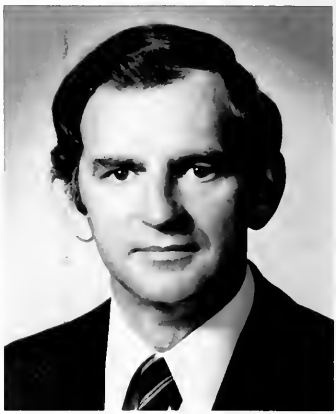
H. Wayne Mohorn

H. Wayne Mohorn, A.B., D.D.S., M.S., F.I.C.D. is a graduate of UNC School of Dentistry and received an M.S. in endodontics and radiology from the University of Michigan. In group practice in Greensboro, Dr. Mohorn is currently part-time Associate Professor of Endodontics at UNC. A Diplomate of the American Board of Endodontics, he is a member of Omicron Kappa Upsilon at UNC and Phi Kappa Phi at Michigan, a Fellow of the International College of Dentists, has lectured nationally and authored several publications.

Monday, May 12, 1980
8:00 a.m.-10:00 a.m.
Endodontic Vitallium Implants and Intentional Replants

Endodontic endosseous implants will be presented as they relate to improving the crown root ratio in cases of root resorption and root fractures. Anatomical, technical and biological limitations will be discussed. Conventional endodontic therapy of some molars is not always possible in cases of canal obstruction and perforations. The intentional replant of molars will be presented as an alternative to loss of such teeth that are strategically required for maximum mastication. The prognosis and limitation of the intentional replant will be discussed.

J. Gary Maynard, Jr., B.A., D.D.S., LTD. received his dental degree from the Medical College of Virginia and a Certificate in Periodontics from the University of Kentucky. In practice limited to periodontics in Richmond, VA, he is Clinical Professor of Periodontics at the Medical College of Virginia. A member of various professional organizations, including the American Society of Periodontists and the American Academy of Periodontology, Dr. Maynard organized and was President of the Virginia Society of Periodontists and is current President of the Southern Academy of Periodontology. Author of many professional journal articles, he co-authored two chapters in the testbook *Periodontics for the General Practitioner.* He has lectured extensively throughout the U.S. and internationally.



J. Gary Maynard, Jr.

Richard D. Wilson, D.D.S., LTD, F.A.C.D. received his dental degree from Temple University, Philadelphia, and is Clinical Professor of Periodontics at the Medical College of Virginia, Richmond. Currently President-elect of the Richmond Dental Society, Dr. Wilson is a member of various professional organizations, including the International Association of Dental Research and the American Academy of Periodontology. He has given presentations before numerous local study clubs and has lectured nationally and internationally. Dr. Wilson is co-author with Dr. J. Gary Maynard, Jr., of textbook chapters on periodontal disease in general practice.

Monday, May 12, 1980
8:00 a.m.-10:00 a.m.,
2:00 p.m.-5:30 p.m.
Restorative Dentistry with Periodontal Considerations

Richard D. Wilson

This presentation is directed toward the dentist in daily practice. The relationship of restorative dentistry to the periodontium will be emphasized. The establishment of a proper restorative environment will be discussed and restorative techniques will be demonstrated which defend that environment.

The amalgam restoration, the provisional restoration, an impression technique and the full coverage restoration will be shown. Hints on esthetics will be presented. Principles of osseous surgery which relate to success in restorative dentistry will be explained. The surgical management of mucogingival problems in children and adults will be covered, including new approaches. The visual aid utilized will show step-by-step clinical procedures.

The course is biologically based and clinically oriented so as to offer techniques which may be used on a daily basis. Diagnosis and sequence of treatment will be stressed and guidelines for predictable success in restorative dentistry will be included.

The conceptual aspects of therapy will be examined with a view toward developing and effective and practical rationale for treatment.

Communication with the patient will be discussed throughout the presentation.

Ron Useldinger

Ron Useldinger, one of the nation's most sought after convention speakers has traveled over one million miles conducting lectures, seminars and workshops on physical fitness and its relationship to personal achievement and job performance. Mr. Useldinger has written scores of featured articles on fitness and sports for national magazines. He has been a guest on many radio and television shows and is an executive director of five half-hour TV productions dealing with the problems of fitness in America. For the last eight years, he has served as Director of the Fitness Motivation Institute of America, and also as a conditioning consultant for many of the top athletic professional teams in the country.

Monday, May 12, 1980
8:00 a.m.-10:00 a.m. and
2:00 p.m.-4:00 p.m. (repeat)
Fitness for Busy Dentists

The search for happiness and the role good physical fitness plays in its achievement. The motivation problems inherent in conventional approaches in achieving physical fitness. A slide presentation dealing with the relationship of poor fitness to heart disease, lower back problems and other chronic illnesses; an explanation of fitness evaluation techniques; an introduction of a "breakthrough" in physical conditioning and who is using the program; fitness in business and industry and how it relates to job performance, increases in medical insurance premiums and workman's compensation rates. Introduction and demonstration of the Aerokinetic System of Exercise and how it represents a breakthrough in time, convenience, effectiveness and motivation. An explanation and demonstration of simple fitness evaluation techniques that everyone can do to determine their fitness level.

James A. Hyde

James A. Hyde, D. Min, is a graduate of Southeastern Baptist Theological Seminary. He is currently Director and Pastoral Counselor of the Fayetteville Family Life Center, a satellite counseling center for the North Carolina Baptist Hospital which he helped establish in 1974. An educator of clinical pastoral education and pastoral counseling, Dr. Hyde is a member of the American Association of Pastoral Counselors and the American Association of Marriage and Family Therapy.

Monday, May 12, 1980
2:00 p.m.-5:00 p.m. and
Tuesday, May 13, 1980
8:00 a.m.-11:00 a.m. (repeat)
Marital Enrichment—An Alternative to Marital Erosion

The purpose of the conference is to provide participants with an opportunity to recognize marital problems and develop alternative skills in communication and self-esteem. The identification and management of stress will be explored and evaluated in a couple's relationship. This seminar will be a combination of didactic and experiencial material. It is best experienced by couples who wish to increase their marital awareness and enrich their relationship.

Henry A. Williams, D.D.S. received his degree from Loma Linda University, CA and is an Associate Professor and Director of Dental Ceramics at the School of Dentistry, Medical College of Georgia. A member of the American Academy of Dental Electrosurgery, Dr. Williams was President of the Southern Chapter of the National Association of S.D.A. Dentists. A well-known lecturer throughout the United States, Dr. Williams is a contributor to a textbook on Fixed Partial Prosthesis and an innovator in the development of self-instructional programs.

Henry A. Williams

Tuesday, May 13, 1980
8:00 a.m.-10:00 a.m.
Practical Electrosurgery in Restorative Dentistry

This lecture slides presentation will cover the practical aspects of electrosurgical techniques. Information covering electronic generators, electronic currents, electrodes and the use of this modality in specific clinical techniques such as: esthetic contouring, gingivectomy, tissue contouring for restorative procedures, edentulous ridge design and other clinical uses of electrosurgery in the daily practice of dentistry, making dentistry more accurate with greater ease in less time.

Larry Long is senior Vice-President of the Summit Financial Group, Laurinburg, NC. A registered investment advisor and principal with Investment Management and Research, affiliated with Raymond, James and Associates of St. Petersburg, FL, he is a member of the International Association of Financial Planners. Mr. Long frequently addresses groups of businessmen and professionals and presents seminars on the topic of business and practice management.

Tuesday, May 13, 1980
8:00 a.m.-11:00 a.m. and
2:00 p.m.-5:00 p.m.
Business Considerations in Dental Practice

Larry Long's two scientific sessions will include six one-hour lectures. Tuesday morning's topics are: "How Does a Dentist Become an Efficient Business Man?"; "How Should a Dental Wife Prepare to Handle Her Husband's Estate?"; and "How Should You Effectively Use All of Your Business and Personal Advisors?". The afternoon topics are: "Is There a Proper Time to Incorporate Your Practice and When Should You Consider Doing So?"; "How Do

Larry Long

You Evaluate a Tax Shelter?"; and "How Should You Invest Your Money and Keep It Liquid?". Attendees need not attend the morning session to hear the afternoon program.

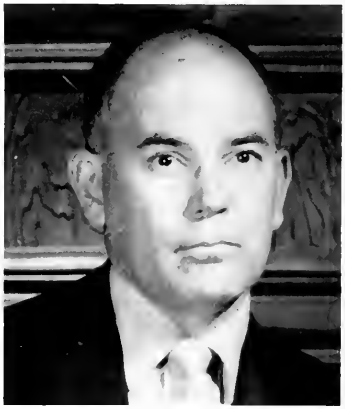
John M. Gregg, D.D.S., M.S., Ph.D. received his dental degree, master's degrees in both anatomy and oral surgery and a doctorate in anatomy from the University of Michigan. A Professor in the Department of Oral Surgery at the UNC School of Dentistry, Dr. Gregg is Co-Director of the UNC Pain Clinic and an Associate Professor of Anesthesiology at the UNC School of Medicine. A member of the International Association for Dental Research, the American Society for Oral Surgeons and the International Association for the Study of Pain, he is the author of more than 80

John M. Gregg

publications and abstracts, including chapters in several textbooks.

Tuesday, May 13, 1980
2:00 p.m.-5:00 p.m.
Office Drugs and Pharmacology Update

This program will provide the dentist with a review and updating on pharmacotherapeutics. Drugs and patient management will be discussed from the perspective of the major organ systems (cardiac, pulmonary, nervous, endocrine, blood-lymph). Drugs associated with office medical emergencies and major systemic diseases will be reviewed. Finally, there will be specific discussions of drug interactions likely to be encountered in the dental patient.



J. Hart Long

A graduate of the Medical College of Virginia, J. Hart Long, D.D.S. is certified by the American Board of Prosthodontics. A Fellow of the Academy of Denture Prosthesis, the American College of Prosthodontics and the American College of Dentists, Dr. Long is past president of the American Equilibration Society and is a member of the American and Florida Prosthodontic Societies. He is in private practice limited to prosthodontics in Daytona Beach, FL.

Tuesday, May 13, 1980
2:00 p.m.-5:00 p.m.
Fabrication of Precision Partials

A technique for the fabrication of precision attachment partial dentures will be described. Primarily, discussion will relate to the mandibular distal extension partial denture. Description will include impression procedure, waxing and casting of the base, tooth preparation and the assembling of the parts in the mouth. Considerable time will be spent describing the adjustment of the occlusion on the patient.

A Comparison of Hydron® Root Canal Filling Material and Gutta Percha Obturation

*Irvin A. Roseman, D.D.S.**

INTRODUCTION

Numerous investigators have stated in this century that root canal therapy can be divided into three main phases: 1) debridement, 2) microbial control, and 3) complete obturation of the root canal system. The ultimate aim of this treatment is retention of the tooth and maintenance of the periapical tissues in optimum health.

Schilder[15] has stated that in the final analysis it is the sealing off of the complex root canal system from the periodontal ligament and bone which insures the health of the attachment apparatus against breakdown of endodontic origin.

A hydrophilic plastic polymer, Hydron®, has recently been introduced to the dental profession as an "effective" root canal material. It is the purpose of this investigation to compare this hydrophilic plastic polymer to the conventional root canal filling material, gutta percha, for homogeneity of the filling, voids in the filling, porosity, adaptation to the prepared canal walls, and apical adaptation in maxillary central and lateral incisors.

REVIEW OF LITERATURE

Since Hess'[19] study in 1925 of anatomy and morphology of pulp canals, numerous investigations have demonstrated that the root canal system cannot be totally debrided. Gutierrez and Garcia[7] in 1958 showed in 216 teeth a high incidence of prolongation of the root canals, resembling the fins of a fish. These extensions were never touched by endodontic instruments. Davis *et al*,[4] in a 1972 study of injectable silicone in 217 teeth, found that fins, irregularities, lateral canals and accessory canals may be filled with necrotic or vital tissues and bacteria after canal preparation. Wollard, Brough and Maggio,[16] in an electron microscopic examination of 133 teeth, observed that root canal fillings do not completely obturate the canal system.

In the pathogenesis of pulpal disease, microorganisms may invade inflamed pulp tissue, and the presence of necrotic tissue may lead to persistent inflammation. Schilder[15] states that biologic necessity requires the elimination of detritus, bacteria and bacterial toxins which emanate from necrotic and gangrenous pulp tissue. Naidorf[12] in 1974 stated that improper obturation will permit tissue fluids to enter spaces in root canals which subsequently could become infected. Cohen and Burns[3] stated that the well filled root canal system prevents percolation of exudate in the root canal space, prevents reinfection and creates a favorable biologic environment for healing of tissue to take place.

Many researchers[5,6,8,11,16] feel that the complete obturation of the root canal system is the major requirement of successful endodontic therapy. In 1963 Seltzer *et al*,[14] in a study of 2,921 teeth showed that the completeness of filling did have an effect on the success of repair. Incarcerating potentially injurious agents inside the root canal will allow the host to repair.

Crossman's[6] requirements for a root canal filling material are as follows: 1) it should be easily introduced into the root canal; 2) it should seal the canal laterally as well as apically; 3) it should not shrink after being inserted; 4) it should be impervious to moisture; 5) it should be bacteriostatic or at least discourage microbial growth; 6) it should be radio-opaque; 7) it should not stain the tooth structure; 8) it should not irritate periapical tissue; 9) it should be sterile or easily and quickly sterilized immediately before insertion; and 10) it should be easily removed from the root canal, if necessary.

Since its introduction in 1872 by Bowman,[2] gutta percha has been the most widely used root canal filling material. It is accepted by the endodontic community as that which more closely fulfills Grossman's requirements. A complete list of materials that have been used to prevent diffusion of tissue fluids or microorganisms would be endless.

Risling and research associates[13] in 1975 introduced the most recent root canal material called Hydron® which was initially studied as a root canal filling in monkey incisors. They observed that it appeared to adapt well to

*This investigation was carried out in partial fulfillment of the requirements for a certificate of advanced training in Endodontics at the University of Detroit School of Dentistry, Detroit, Michigan, April, 1979. Dr. Roseman is in private endodontic practice at 1301 Medical Center Drive, Wilmington, North Carolina 28401.

®Hydron® root canal filling material, NPD Dental Systems, Inc., Melville, New York.

the walls of the prepared canals. Krumman *et al*,[10] in a histologic investigation found this filling material to be biocompatible. Benkel and associates,[1] in an investigation on 48 incisors of rhesus monkeys, found healing, biocompatibility, complete filling of irregularities, and calcification of excess material in the periapical areas.

METHODS AND MATERIALS

Forty-eight extracted maxillary central and lateral incisors with fully developed roots and apical foramina were randomly selected from the University of Detroit Dental School's Oral Surgery Department as well as from several offices of oral surgeons. All teeth were stored in a mixture of formalin and glycerin prior to use in this project.

Twelve endodontists from the metropolitan Detroit area, each having at least three years of clinical practice experience, were given two teeth apiece. They were instructed to accomplish root canal therapy with gutta percha on these teeth in the hand. The working lengths were to be established by withdrawing a file one millimeter after visually identifying its protrusion through the apex. All twelve endodontists routinely obturated with gutta percha.

The root canals were then prepared with their preferred combination of standardized files, hedstrom files, gates-glidden burs and irrigation. The numbers of operators using lateral, vertical, and combined condensation of gutta percha were recorded.

Three graduate endodontic students performed root canals on twenty-four maxillary central and lateral incisors, first, by establishing working lengths as indicated above, after opening the teeth with a #4 round bur. The canals were then obturated with the Hydron® Root Canal Filling System.

The specimens were left undisturbed for at least seventy-two hours in a saline solution. Next, they were labeled and radio-graphed in a buccal-lingual direction and a mesiodistal direction. The crowns of the specimens were then removed at the cemento-enamel junction with a separating disk. The roots were then split in a bucco-lingual direction by ditching the teeth with a diamond disk and completing separation with a buffalo knife and mallet.

The specimens were photographed for prints and slides utilizing microphotography. Five endodontists judged the microphotographs without knowing which root canal filling material had been used. The rating scale ranged from one to three. A grade of one was excellent, two was satisfactory, and a grade of three was given for unsatisfactory in each of the categories. The results were evaluated and tabulated for each category.

RESULTS

The photomicrographic specimens were evaluated by five endodontists. Black and white prints of the separated specimens were shown and judged for the following criteria: 1) homogeneity, 2) presence of voids, 3) porosity, 4) adaptation to the canal wall, and 5) apical adaptation. All specimens from both groups were evaluated.

The evaluators were shown representative photographs of excellent, satisfactory and unsatisfactory specimens in each of the categories to further substantiate the results. Figures 1 and 2 show representative specimens with Hydron® and gutta percha root canal fillings. The results of the ratings by the five endodontists are presented in Tables 1 through 5.

Fig. 1. Specimen filled with Hydron® exhibiting unsatisfactory presence of voids.

DISCUSSION

Root canals obturated by the twelve endodontists appeared to be filled with a more solid core of material than those obturated by graduate endodontic students. The endodontists' specimens, filled with gutta percha, showed fewer voids than the Hydron®-filled teeth. All the canals filled with gutta percha appeared to be obturated well to the apical foramen. It was impossible to record if any operator was using lateral or vertical condensation because all used a combination of techniques. Some samples appeared more homogeneous than others; this may be due to the use of vertical condensation, heat, eucalyptol, chloroform or a combination of techniques.

Fig. 2. Specimen filled with gutta percha exhibiting satisfactory wall adaptation.

The specimens obturated with the hydrophilic material appeared to be poorly filled. The material contained numerous voids and surface porosity. Most of the specimens appeared to be poorly obturated in the apical third of the canal.

Based on the findings of this investigation, this injectable technique showed definite inferiority in all areas evaluated but homogeneity. A few specimens did produce satisfactory results; however, this finding was not reproducible. In the Hydron® technique, the material was not easily introduced into the root canal system. The only way this material can be removed is by rotary instruments.

In filling the canals with Hydron®, it was impossible for the graduate students to know if they had obtained adequate obturation without repeated radiographs. Also, large amounts of material were injected out of the apical foramen in some samples. Overfilling would be undesirable in a clinical situation due to irritation of the periapical tissues.

The water content of the final polymer of Hydron® is constant for a given temperature and depends on the amount of moisture present during polymerization.[1] When this material polymerizes in the presence of excess fluids, a porous or spongy structure results. Because in an *in vivo* environment it may be impossible to dry a root canal completely, the clinical results may be of less value than those produced in this investigation.

Splitting teeth in the manner described may have caused distortion or displacement of the filling material. This should have affected both types of filling material equally.

This investigation is a preliminary report. It is difficult to standardize the method of evaluation, and Hydron® is lighter in color than gutta percha on black and white prints, resulting in possible bias. It should be concluded

Table 1
Homogeneity

RATING	HYDRON® # OF TEETH	HYDRON® % OF TOTAL	GUTTA PERCHA # OF TEETH	GUTTA PERCHA % OF TOTAL
EXCELLENT	49	40.8	29	24.2
SATISFACTORY	45	37.5	62	51.7
UNSATISFACTORY	26	21.6	29	24.2

Table 2
Voids

RATING	HYDRON® # OF TEETH	HYDRON® % OF TOTAL	GUTTA PERCHA # OF TEETH	GUTTA PERCHA % OF TOTAL
EXCELLENT	22	18.3	28	23.3
SATISFACTORY	59	49.2	68	56.7
UNSATISFACTORY	38	31.7	24	20.0

Table 3
Porosity

RATING	HYDRON® # OF TEETH	HYDRON® % OF TOTAL	GUTTA PERCHA # OF TEETH	GUTTA PERCHA % OF TOTAL
EXCELLENT	27	22.5	36	30.0
SATISFACTORY	59	49.2	67	55.8
UNSATISFACTORY	34	28.3	17	14.2

Table 4
Adaptation to Canal Wall

RATING	HYDRON® # OF TEETH	HYDRON® % OF TOTAL	GUTTA PERCHA # OF TEETH	GUTTA PERCHA % OF TOTAL
EXCELLENT	40	33.3	46	38.3
SATISFACTORY	54	45.0	55	45.8
UNSATISFACTORY	26	21.6	19	15.8

Table 5
Apical Adaptation

RATING	HYDRON® # OF TEETH	HYDRON® % OF TOTAL	GUTTA PERCHA # OF TEETH	GUTTA PERCHA % OF TOTAL
EXCELLENT	39	32.5	61	50.8
SATISFACTORY	38	31.7	38	31.7
UNSATISFACTORY	43	35.8	21	17.5

that only limited information can be obtained from *in vitro* studies. Nevertheless, the Hydron® technique produced results that were markedly inferior to an acceptable gutta percha technique.

SUMMARY

Forty-eight extracted maxillary central and lateral incisors were prepared and filled. Twenty-four specimens were filled by twelve endodontists using conventional gutta percha techniques and twenty-four by three endodontic graduate students employing Hydron®. The teeth were labeled, radiographed, and the crowns removed before the teeth were split and microphotographed.

All samples were then evaluated by five endodontists for homogeneity, voids, porosity, adaptation to canal wall, and apical adaptation.

Of the 48 maxillary incisors evaluated, Hydron® produced more unsatisfactory specimens in all of the above criteria except homogeneity, where more unsatisfactory gutta percha specimens were found, although the difference was only 2.6%.

CONCLUSIONS

Under the conditions of this *in vitro* study, the following can be concluded:

1. Hydron® and gutta percha exhibit similar homogeneity.
2. Hydron® produces more voids than gutta percha.
3. Hydron® exhibits greater porosity than gutta percha.
4. Gutta percha produces better adaptation to the root canal wall than Hydron®.
5. Gutta percha produces better apical adaptation than Hydron®.

References

1. Benkel, R. H., Rising, D. W., et al. Use of hydrophilic plastic as a root canal filling material. J of Endo. 2 196-202, July 1976.
2. Bowman, G. A. In a History of Dentistry in Missouri. Fulton, Mo., Ovid Bell Press, p 423, 1938
3. Cohen, S. and Burns, R. C. *Pathways of the Pulp*. C. V Mosby, St. Louis, pp 134-186, 1976
4. Davis, S. R., Brayton, S. M., and Goldman, M. The morphology of the prepared root canal: A study utilizing injectable silicone. Oral Surg, 34 642-648, 1972
5. Fogel, B. B. A comparative study of five materials for use in filling root canal spaces. Oral Surg, 43:284-299, 1977.
6. Grossman, L. I. *Endodontic Practice*, 8ed, Lea and Febiger, Philadelphia, pp 275-321, 1978.
7. Gutierrez, J. H. and Garcia, J. Microscopic measurement investigation of results of mechanical preparation of root canals. Oral Surg, 25:108-115, 1968
8. Haga, C. S. Microscopic measurement of root canal preparations following instrumentation. J Brit Endo Soc, 2:41-46, 1968.
9. Hess, W. The Anatomy of the Root Canals of the Teeth of the Permanent Dentition. William Wood, pp 3-199, 1925.
10. Kronman, J. H., Goldman, P. S., et al. Evaluation of intracytoplasmic particles in histiocytes after endodontic therapy with a hydrophilic plastic. J Dent Research, 56:795-801, July 1977.
11. Langeland, K. Root canal sealants and pastes. Dent Clin North Am, 18:309, April 1974
12. Naidorf, I. J. Clinical microbiology in endodontics. Dent Clin North Am, 18:329, April 1974.
13. Rising, D. W., Goldman, M., and Brayton, S. M. Histolytic appraisal of three experimental root canal filling materials. J of Endo, 1 172-177, May 1975.
14. Seltzer, S., Bender, I. B., and Turkenkopf, S. Factors affecting successful repair after root canal therapy. JADA, 67 651-661, 1963.
15. Schilder, H. Filling root canals in three dimensions. Dent Clin North Am, W. B. Saunders, pp 723-744, 1967
16. Wollard, R. R., Brough, S. O., and Maggio, J. Scanning electron microscope examination of root canal filling materials. J of Endo, 2 98-110, April 1976

Ischemic Heart Disease Risk Factors

*Robert A. Herrin, D.D.S., M.S., M.D.**

Ischemic heart disease (IHD) includes myocardial infarction, atherosclerotic heart disease, and angina pectoris. It is the leading cause of death in American males after age thirty-five and in all Americans after age forty-five. Between 1940 and 1968 the death rate from IHD soared, however, since that time it has slightly moderated[1].

The vast majority of IHD in the United States is due to a reduction in coronary blood flow secondary to long standing atherosclerosis[2]. By the time symptoms appear the disease is far advanced, and no simple test for detection of atherosclerosis exists. Myocardial infarction is one end result of this process which has an origin in childhood[3]. Significant atherosclerosis was detected in the coronary arteries of 77% of 300 American soldiers killed in the Korean War (average age, 22 years)[4].

A number of risk factors are known to be associated with the progression of IHD[5]. The purpose of this paper is to identify these risk factors with special attention to those which may be influenced. While it has not been proven that atherosclerotic lesions can be made to regress, data exist which suggest that rapid progression of IHD can be prevented by control of non-fixed risk factors. In Table I probable risk factors are listed.

Table 1.
IHD Risk Factors

1. Fixed Factors
   a. age
   b. sex
   c. race
   d. geography
   e. heredity
2. Non-fixed Factors
   a. hyperlipidemia
   b. hypertension
   c. cigarette smoking
   d. diabetes mellitus
   e. lack of exercise
   f. stress
   g. obesity

FIXED FACTORS

Differences in age, sex, race, geographic location, and family history are associated with varying death rates from IHD. While these factors cannot be altered, they do provide variables which in population studies shed light upon potentially preventable aspects of IHD. For example, the death rate from IHD in Japan is one-fifth that of the United States. Japanese migrants to the United States, however, reach a much higher rate than relatives of the same age who remain in Japan and may even approach that of the general U.S. population[6]. In contrast, American blacks (who comprise a disproportionate segment of the lower socio-economic class) have a significantly lower death rate from IHD than Americans at all ages[7]. These data are supported by studies of lower socio-economic groups in many Western European countries. Two obvious cultural differences between less affluent blacks and middle class whites or Japanese in the United States are fat content of the diet and amount of physical activity while working. Viewed collectively, these data implicate aspects of certain middle and upper socio-economic lifestyles as influential in the development of IHD.

Incremental increases in age are linked to a rising death rate from IHD. Whether this occurs because of a natural aging process or because of long-term exposure to etiological agents is not known. Much of the data presented here suggest the latter.

Males have a higher death rate than females in all age groups. Surveys have shown that first degree male relatives of females having IHD were seven times more likely to have this disease. First degree male relatives of males having IHD had a twofold increase in heart attack rate[8]. Both dietary and genetic factors may be influential in these data.

NON-FIXED FACTORS

Hyperlipidemia

Hyperlipidemia is a complex subject beyond the scope of this brief paper. However, the lipids of primary concern to this discussion are cholesterol and triglycerides. Controversy exists as to a definition of "normal" serum cholesterol and serum triglyceride levels. In the past, upper limits have been based on statistical values derived from population studies within our society. However, an increased risk of IHD can be predicted when the cholesterol is higher than 220 mg. per

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100 ml. (of blood), a value close to the mean for men from forty to forty-nine years of age. The age related increases in serum cholesterol and triglycerides present in Americans are less in many other populations and may not be physiological[9]. The Framingham study indicated that a cholesterol level of greater than 260 mg. per 100 ml. was associated with a three to five fold increase in myocardial infarction when compared to a serum level of less than 220 m. per 100 ml. in a similar age group[10]. It appears that there is an increasing risk of IHD as certain serum lipids increase, and that our population as a group does not have physiologic serum lipid levels throughout a substantial portion of our lifespan.

Hyperlipidemia may be due to several factors, but the higher mean population levels of triglycerides and cholesterol reported in certain industrial societies compared with the world population appear to be diet related. A young adult changing his diet from the "average" daily American diet (140 g. fat, 600 mg. cholesterol, saturated fat to unsaturated fat ratio of 3 to 1) to a new daily diet (140 g. fat, less than 300 mg. cholesterol, saturated fat to unsaturated fat ratio of 1 to 3) can expect a 10 to 30% reduction of serum cholesterol within 2 weeks[11]. Cholesterol is present in large amounts in animal fats, whole milk products, and eggs. Serum triglyceride levels are more sensitive to the control of total caloric intake, especially calories contained in carbohydrates and fats.

Dentists and their family members should have a blood lipid profile performed. If it is "abnormal," interval determinations should be made, and diet control instituted under the care of a physician. There is no one diet plan for the control of abnormal lipid levels. If it is "physiologically normal" (quite different from the population mean), prudent dietary practices should still be considered. These include ingestion of lean meat (poultry and fish), low fat milk products, vegetables, fruits, grains, unsaturated cooking oils, and unsaturated margarines (read the label).

The lipid profile has become a valuable statistical tool which can help you determine your (and your family's) risk of IHD and therefore myocardial infarction. More importantly, lipid levels may be altered so that statistical risk can be reduced.

Hypertension

Elevations in blood pressure have been demonstrated to be associated with increased atherosclerosis. One author reported that the incidence of IHD in males over forty-five with a blood pressure greater than 160/95 was five times that of a similar age group of normotensive (less than 140/90) males. Control of hypertension results in a decreased incidence of cerebral vascular accidents, congestive heart failure and probably myocardial infarction[12]. Certainly the reduction of blood pressure decreases cardiac workload in the potentially compromised heart of a patient with IHD.

Adults should have periodic blood pressure evaluations. Evidence is accumulating that treatment of hypertension by diet control (restriction of NACl) and by medication (when necessary) results in elimination of many serious sequela.

Cigarette Smoking

Males smoking one pack of cigarettes per day experience nearly twice the death rate from IHD as males who do not smoke[13]. A gradient of increased risk associated with increased smoking levels has been demonstrated[14]. Cessation of smoking results in a rapid decline in this increased death rate, although it is several years before a level comparable to nonsmokers is reached. Atherosclerosis was demonstrated to be much more severe at autopsy in smokers[15]. While development of lung cancer in association with cigarette smoking is an all or none situation, the data imply that *all* heavy smokers have significantly accelerated IHD. These individuals almost certainly advance the onset of symptomatic heart disease with each year of smoking.

Diabetes Mellitus

Glucose intolerance is associated with a several fold increase in symptomatic IHD, and autopsy studies have confirmed increased severity of atherosclerosis in these patients[16]. Data are not available at this time to indicate whether strict control of blood glucose diminishes the increased risk.

Exercise

The role of physical activity in preventing heart attacks is widely accepted, although data are somewhat inconclusive concerning these assertions. In the Framingham study it was concluded that the sudden death rate from heart attacks was diminished in patients who had pursued regular physical exercise prior to the attack[17]. Other population studies support the assertion that IHD is less severe in active people, but, these studies dealt with multiple variables. My interpretation of existing data is that regular physical exercise lowers the risk of developing IHD, but as a risk factor, lack of exercise is not as important as hyperlipidemia, hypertension, or cigarette smoking in the American society.

No studies correlate the amount of exercise with the amount of risk reduction, and the "appropriate" degree of exercise is not known. If you have a history of heart disease, consult your physician prior to beginning an exercise program. Otherwise, 30 minutes of cardiovascular stimulation three to four times per week seems to be a reasonable goal, according to several cardiologists with whom I consulted. Walking elevates the pulse rate, dilates vascular channels in large muscle groups, and increases cardiac output. Riding a stationary bicycle 30 minutes every other day (or more) is another convenient exercise technique which may be increased gradually. A recent article in *Consumer Reports* indicates that an exercise bike with fixed handle bars is preferable to one with movable handle bars (requiring trunk to flex while riding). This device can be kept at home or in the office.

Stress

There are few data which indicate that increased *incidence* of IHD results from stressful occupation or life situation[18]. The Western Collaborative Study did attempt to identify certain personality types in patients with IHD who were more prone to suffer serious consequences of this disease (heart attack or disabling angina). Thus while stress may provoke sequela of IHD, it appears to play a small role in the development of IHD. As an etiologic factor, stress certainly has less importance than hyperlipidemia, hypertension, cigarette smoking, and probably physical inactivity. Stress control is most important in patients with other risk factors or advanced IHD.

Obesity

While obesity may not be an independent risk factor in the development of IHD, it is associated with increases in blood lipids, blood glucose levels, and hypertension. The risk of dying from myocardial infarction is greater in obese patients than in "normal" weight victims of heart attack[19]. Increased adipose tissue requires excess cardiac work from a heart which is

likely to have significantly narrowed coronary arteries. Like stress, obesity appears to hasten serious sequela of IHD when other risk factors are present. In addition there is a tendency for major risk factors to be present in the obese patient.

SUMMARY

Of the non-fixed factors, the most important ones are hyperlipidemia, hypertension, and cigarette smoking. Control of these factors begins with periodic evaluation of blood lipid levels, periodic evaluation of blood pressure and elimination of cigarette smoking. Prudent dietary measures should be observed in order to control lipid and salt intake. Medication should be taken for hypertension if necessary to restore normotension. Obesity has been identified as a factor which indirectly accelerates the development of IHD and directly increases serious consequences of IHD. Reasonable caloric intake and moderate physical exercise are the cornerstones of weight control. Stress and lack of physical exercise have been discussed as risk factors. Stress is most important in patients with advanced IHD.

By controlling certain risk factors, there is good evidence that an individual's chance of developing IHD may be greatly reduced.

REFERENCES

1. Thorn, W. G.; Adams, R. D.; Braunwald, E.; Isselbacher, K. J.; and Petersdorf, R. G. *Harrison's principles of internal medicine*, ed. 8, McGraw-Hill Book Company, 1977, p. 1301.
2. Blackburn, H., Progress in the epidemiology and prevention of coronary heart disease. Prog. Cardiol., 3:113, 1974.
3. Robbins, S. L. *Pathologic basis of disease*, ed. 4., W. B. Saunders Company, 1974, p. 587.
4. Schwartz, C. J.; Ardlie, M. B.; Carter, R. F.; and Patterson, J. C., Gross aortic sudanophila and hemosiderin deposition. A study on infants, children, and young adults. Arch. Path., 83:325, 1967.
5. Kannel, W. B.; Dawber, T. R.; Friedman, G. D.; Glennon, W. E.; and McNamara, P. M. Risk factors in coronary heart disease. An evaluation of several serum lipids as predictors of coronary heart disease. The Framingham study. Ann. Intern. Med., 61:888, 1964.
6. McGill, H. C., The geographic pathology of atherosclerosis. Lab. Invest. 18:463, 1968.
7. Thorn *et al*, p. 1301.
8. Slack, J., and Evans, E. A., The increased risk of death from ischemic heart disease in first degree relatives of 121 men and 96 women with ischemic heart disease. J. Med. Genet., 3:239, 1966.
9. Thorn, *et al*, p. 1303-05.
10. Kannel, W. B., and Gordon, T. Some characteristics related to the incidence of cardiovascular disease and death: Framingham study 18 year followup. U.S. Department of Health, Education, and Welfare Publication, (NIH). 74-599, 1974.
11. Thorn, *et al*, p. 1304.
12. Thorn, *et al*, p. 1306.
13. *Ibid.*
14. Strong, J. P. On the associations of cigarette smoking with coronary and aortic atherosclerosis. J. Atheroscler. Res., 10:303, 1969.
15. Thorn, *et al*, p. 1306.
16. *Ibid.*
17. Thorn *et al*, p. 1307.
18. Morris, J. N., and Gardner, M. J., Epidemiology of ischemic heart disease. Amer. J. Med., 46:674, 1969.
19. Thorn, *et al*, p. 1307.

SUGGESTED GUIDELINES FOR ASEPSIS IN THE DENTAL OFFICE ENVIRONMENT

In 1979, the current President of the North Carolina Dental Society, Dr. R. J. Shankle, appointed a committee of practicing dentists together with an oral microbiology consultant to develop some practical and effective guidelines on dental office asepsis. The guidelines were accepted by the Board of Trustees for distribution in January 1980. The goal was to provide uniform information to every member of the Dental Society in the State about useful and especially practical approaches to asepsis in the dental office.

The "Suggested Guidelines for Asepsis in the Dental Office Environment" have been published as a special insert in this issue of the North Carolina Dental Journal. By simply separating the insert from the rest of the Journal, you may keep these Guidelines in a convenient place in your office for continuing reference.

The Committee appreciates the assistance and encouragement of the North Carolina Dental Society Board of Trustees and Dr. Jeffrey P. Mazza, Editor/Publisher.

Committee Report of the North Carolina Dental Society
James J. Crawford, Ph.D., Microbiology Consultant
James B. Graham, D.D.S.
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H. Wayne Mohorn, D.D.S., Committee Chairman

SUGGESTED GUIDELINES FOR ASEPSIS IN THE DENTAL OFFICE ENVIRONMENT

Introduction

The need for practical, basic aseptic procedures has been recognized by the American Dental Association and similar concern has been expressed by various Public Health Service investigators.[2]

Severe to mild infections are still prevalent in the population of North Carolina. Even patients who appear healthy can carry undetected infections into the dental operatory. Outbreaks of various transmissible diseases in the general population are a constant reminder of the continual need for uniform, practical, effective methods to prevent cross-contamination during dental treatments especially because of the volume of patients treated.

The prevalence of infections is illustrated by the following estimates from surveys and health reports. Approximately one person in seventy carries herpes simplex in their saliva that can infect unprotected eyes or enter small unprotected lesions on fingers.[5] Numerous persons carry respiratory viral or bacterial pathogens, such as the streptococci that cause septic sore throats (Strep. throat) and rheumatic fever.[5] In 1979, 461 new cases of tuberculosis were reported in North Carolina. Hepatitis infections can be severe and are not easy to detect or control. In the last year and a half, two counties have reported outbreaks of viral hepatitis. Over 50 cases of infectious hepatitis A were reported in Catawba County over a six-month period during 1978-79. Hepatitis A is mainly spread by the fecal to oral route. The North Carolina outbreak appeared to be spread by children in nursery schools and daycare centers. One out of two hundred persons in the general population remain carriers of serum hepatitis B, half or more of these have had only subclinical infections and are difficult to detect.[1] Serum hepatitis B caused serious infections among 9 persons in Craven County during the last year in association with abuse of injected drugs. Six deaths were attributed mainly to chemical toxicity associated with drugs injected. Usually less than 10% of clinical cases are fatal.

Although obvious primary concern is for the patient safety, available data suggest that dental personnel are the most vulnerable to cross-infections. Surveys have shown the general rate of hepatitis B exposure among U.S. dentists is 14% (about 1 in 7) with an illness rate of 6%.[1,2,5] In North Carolina, Public Health Service Reports of hepatitis B infections do not show that any dentists have been infected in the last 3 years. However, reporting of hepatitis B is very poor. First or secondhand accounts available to the consultant alone indicate that at least 6 North Carolina dentists have been ill with hepatitis B in the last 3 years, and at least 2 auxiliaries have been infected. Such information is far from complete.

Therefore, the importance of practical methods to protect the large numbers of patients that receive dental treatments, as well as all clinical personnel is readily apparent. The suggested guidelines for asepsis prepared by the Committee are presented here.

Methods.

A. Patient History and Screening.[1,2] (Appendix I and II)

1. Survey each patient's history thoroughly before each treatment for any current systemic or respiratory disease and for oral and pharyngeal lesions, infections, or recent exposures that require protecting yourself and your staff, rescheduling patients, or referring them for tests.
2. Patients suspected of TB (chronic cough, low grade fever, weight loss, night sweats, lethargy, etc.) should be referred to their physician for tuberculin testing and examination and not be treated routinely until the physician's approval is received.
3. Patients with a positive test for Hepatitis B, and persons suspected of Hepatitis A or TB, or other severe infection, who must be treated while they are infectious, or while test results are not available, should be referred to a hospital dental service, or be treated under maximum precautions to protect other patients and the clinical staff. Maximum precautions may be reduced slightly when that is warranted. For example, use singlegloving and masking, rather than double gloving and masking. (See Appendix II and III).
4. It is advantageous for all clinical dental personnel to be tested for hepatitis B and antibody to hepatitis B. Those who are antibody positive should be resistant to further infection. Those who are positive for hepatitis B (i.e. for the virus surface antigen) would want to take precautions to avoid infecting any patients.
5. Personnel definitely exposed to hepatitis B should begin receiving hepatitis B immune serum within 48 hours or at least within 1 week.

B. Personal Protection for Routine Treatments.[2,5,7]

1. Wear a clean smock and keep hair neatly back and well out of treatment field.
   Both dentists and auxiliaries should be protected against spatter and debris. Wear protective glasses and masks as needed. Use rubber cups in place of polishing brushes where possible to avoid spatter. Wear gloves when risks of infection are likely, e.g. when oral lesions are detected. Patients' eyes should also be protected.
2. Wash hands thoroughly, lathering and rinsing 2-3 times quickly, between routine patients and whenever returning to the operatory. Use mild or germicidal cleansers as needed. (Antiseptic foams may supplement but are not a substitute for washing.) Auxiliaries should remove rings, wash before and after cleaning the unit. Hands should be kept away from your nose, face, hair, mobile chair, soiled pencils, phone, etc., unless they are washed again.

C. Correction of Dental Unit Cross-Contamination Sources.[2,5]

1. Saliva suck-back created by the water retraction system in the handpiece water lines should be corrected by installing check valves. (Available from ADEC, Midwest American, or your unit manufacturer).
2. Obtain replaceable air-water syringe tips so these can be removed and sterilized to control contaminating water and debris aspirated by syringe tips. (Available from ADEC or consult your manufacturer.)

D. Preparation of the Dental Unit and X-ray Unit for Routine Treatments[2,5,7]

Before seating each patient, all surfaces and items

touched by saliva or blood-coated hands should be scrupulously scrubbed with an effective germicide; or, use protective disposable covers; or don't touch them. Disposable covers (paper, plastic film or foil) are cheaper than the gauze sponges used to disinfect surfaces. They are also quicker to change, and provide more through protection than does disinfection.

1. Germicides for surfaces.

a. Plain alcohol dries quickly and doesn't affect hepatitis B viruses in saliva or blood of unrecognized carriers. Benzalkonium chloride is not effective (ADA).[3,4]

b. *Iodine* (iodophore) detergent scrubs (see brands below) and *sodium hypochlorite* (e.g. Clorox) are believed effective against most infectious agents including all hepatitis viruses. (Bond, et al.).[4]

c. *Iodine detergent scrub* (1% iodine content) can be used, full strength to scrub handpieces, prosthodontic devices, etc., at the sink.

d. *Glutaraldehyde*, 2%, (e.g. Cidex, Sporicidin) is also said to be effective for surface disinfection.[4] Skin and eyes should be protected.

e. *Disinfectants for the unit:* Use 1 part of iodine scrub plus 20 parts of 90% isopropyl alcohol or 70% ethyl alcohol (e.g. 2 oz. of the detergent to 5 cups of the alcohol). Squeeze out gauze sponges (3" x 3" preferred) in, disinfectant and scrub metal items scrupulously. Remove the invisible film of iodine if necessary with plain alcohol after 3 minutes. Or, glutaraldehyde (2%) may be used, undiluted.

Avoid touching and contaminating any pastel surfaces of the unit during treatments so they need not be disinfected for each appointment. Iodine may discolor them.

Sources of iodophore detergents.

Dilute them in water if necessary (but 70% methyl or 90% isopropyl alcohol is preferred for iodines.)

—Vestal Iodine Scrub, Vestal Laboratories, St. Louis, MO 63110

—Prepodyne Scrub, West Chemical Prod., Atlanta, GA 30306

—Betadine Surgical Scrub, Purdue Fredrick, Yonkers, NY 10701

Hypochlorite Solutions are also effective for surface disinfection, but can harm skin and clothing, injure eyes and have a strong odor. For use, add 1 part of household bleach (5% hypochlorite) to 100 parts water (⅓ oz. bleach to 1 quart of water).

2. Handpieces, air-water syringes, ends of high vacuum and saliva ejector hoses

All such items that cannot be sterilized should be scrubbed thoroughly, *twice*, with 2 gauze sponges, saturated with iodine-alcohol (1:20).

Heat sterilizable handpieces can now be purchased at no extra cost from most manufacturers, upon request. These can be steam autoclaved in efficient small lightweight steam autoclaves in less than 15 minutes, total cycle time at 270°F.

3. Other surfaces of the dental unit and x-ray unit

These and attached items (e.g. lamp handle, switches, tray, air-water syringe handles, drawer pull handles) are touched during treatment procedures in a manner that could transfer blood and saliva-borne infections from one patient to the other.

Thoroughly disinfect them with an effective germicide, such as the iodine-alcohol described above.

Another approach is to drape surfaces such as lamp handles and instrument trays, using plastic film, paper or aluminum foil that is discarded after each appointment, to avoid cost of sponges, chemicals and time needed for thorough disinfecting.

E. Instruments and Materials for Routine Non-Surgical Use

All instruments used in intraoral treatments including burs, metal impression trays, metal suction tips, (with possible exception of handpieces) should be sterilized before reuse. However, non-surgical, sterilized instruments may be stored clean and unwrapped. Sterilized surgical instruments should be kept wrapped until used.

1. Methods of sterilization

a. Effective means of sterilization that can be controlled and verified are:

—Steam autoclave

—Dry heat

—Harvey vapor pressure

—Ethylene oxide

2. Chemicals and methods of disinfection

Disinfecting instruments has a number of limitations. Use of adequate immersion times and changing solutions at required times are difficult to control. Disinfectants cannot actually sterilize within 30 minutes while steam or Harvey vapor pressure sterilizers usually can. Sterilization and disinfection using germicides ordinarily cannot be verified in office use, while more effective methods using heat or gas can be readily verified. Only certain disinfectants are effective and useful.

a. Quaternary ammonium compounds (e.g. benzalkonium chloride, cetyl dimethyl ammonium bromide) are not effective against tuberculosis bacteria. These, as well as phenolic derivatives (e.g. Staphene) and diluted or undiluted solutions of plain alcohol are not effective against bacterial spores and certain viruses, including hepatitis A and B viruses. Therefore, they cannot sterilize or effectively disinfect instruments or surfaces in the dental operatory. They are not recommended by the ADA for disinfection of instruments or surfaces.[3]

b. Undiluted, 2% glutaraldehydes (e.g. Sporicidin, Cidex) can sterilize clean, smooth, metal, instruments in 7 to 10 hours. Undiluted, 2% glutaraldehydes, and fresh 8% formaldehyde are accepted as having intermediate activity for disinfecting instruments in 30 minutes. (ADA).[3]

c. For most non-metalic items, fresh 1% sodium hypochlorite (e.g. Clorox diluted 1:5 in water) and iodine scrubs (iodophores with 1% iodine content) have been recommended by the ADA[3] as well as 2% glutaraldehydes.

3. Specific instruments and items

a. *Disposable needles and anesthesia cartridges. These should never be used for more than one patient.* Used needles should be placed in a box or metal container for safe disposal.

b. *Rubber phophylaxis cups.*

These get debris in cracks or tears and cannot be disinfected.

Discard after each patient or use gas or steam to sterilize them before reuse.

c. *Plastic suction tips, impression trays, etc.*

Clean items are disinfected in 2% glutaraldehyde or in fresh 1:5 hypochlorite solution for 30 minutes.

d. *Prosthodontic items, instruments, and materials used at chairside.* These include impression material tubes, bowls, spatulas, etc. They should also be thoroughly disinfected or, preferable, scrubbed with an iodophore detergent at the sink after each appointment. Before removable or fixed prostheses are returned from an office laboratory or a commercial laboratory to the patient's mouth, such devices should be meticulously scrubbed with, or adequately disinfected in an effective germicide. A fresh solution containing 1 part iodine scrub and 4 parts water has been used to disinfect removable and most fixed prostheses for 3 minutes or more, as needed.

4. Handling used instruments

Dirty instruments should be handled and cleaned while wearing heavy household gloves to protect hands against injury and serious infections. Instruments are cleaned by scrubbing or preferably by ultrasonic cleaning. Instruments are inspected for debris, and rinsed and dried before heat or gas sterilization. Packaging used for steam or gas must allow penetration.

F. Verifying Instrument Sterilization

There is no simple way to prove that a disinfectant solution in a tray is fresh, or active, or used properly. Sterilization by gas or heat is more thorough usually in a shorter time and can be verified fairly easily in the office. Verification of heat or gas is important because any sterilizer can be abused by overloading, by improper packaging, or timing, and by not cleaning the air exit screen of the autoclave steam chamber. (In 200 Minnesota dental offices surveyed in a research study, ⅓ used autoclaves or Harvey sterilizers in a manner that could not sterilize the test spore strips supplied. This resulted from abuses that can be avoided by simple monitoring procedures.[6]).

The following are recommended to control and verify sterilization:

1. Color change tape.

Use color change tape (e.g. autoclave tape, available from all dental supply companies) to distinguish all packs or batches of instruments that have been in the sterilizer from those that have not. Dating the tape shows when a pack was processed. (Tape must be chosen specifically to match each type of sterilization.) Unused surgical packs should be reprocessed after a month.

2. Indicate strips.

Use a slow color-change, indicator strip in each pack or unwrapped load. Proper color change can immediately show that heat, steam, or gas reached the inside of the pack or load for a prolonged time and would probably cause sterilization, although this does not prove sterility.

Indicator strips found effective are available: Surgicot, Inc., 73 Sealey Ave., Hempsted, N.Y. 11550; from hospital supply dealers and from manufacturers of ethylene oxide sterilizers for gas sterilization.

3. Spore tests

Only by placing a strip of paper coated with harmless bacterial test spores inside a typical pack, in a typical load can the sterilizer's ability to destroy similar disease spores be proven. Hospitals must do this once every week. An office sterilizer should be tested once a month. Spore test strips can be purchased and returned to the company to be cultured. (American Sterilizer Co., 2425 W. 23rd St., Erie, PA 16512).

One company provides a simple test for office use. They provide a very small incubator, and a spore strip with a tiny vial of culture broth in a plastic tube the size of an anesthesia cartridge. After sterilization, the tube is pinched to release the broth and the tube is incubated. The culture broth changes color if the test is positive. (Minnesota Mining Co., 3M Center, St. Paul, Minn. 55101)

Bibliography

1. ADA Council on Dental Therapeutics: Type B (Serum) hepatitis and dental practice. JADA 92:153, 1976.
2. ADA Council on Dental Materials and Devices, and Council on Dental Therapeutics: Infection Control in the Dental Office. JADA 97:673, Oct. 1978.
3. ADA Council on Dental Therapeutics: Quaternary ammonium compounds not acceptable for disinfection of instruments and environmental surfaces. JADA 97:855, Nov., 1978.
4. Bond, W. W. et al.: Viral hepatitis B: aspects of environmental control. Health Lab Sciences 14:235, 1977. (Available on request from the USPHS Center for Disease Control, Hepatitis Reference Laboratories, Phoenix, Arizona.)
5. Crawford, J. J. *Clinical Asepsis in Dentistry.* (A 34 page manual for private dentists and auxiliaries) 2nd updated and revised ed. 1979. R.A. Kolstad, Mesquite, Texas, or J. Crawford, UNC Dental School, Chapel Hill.
6. Simonsen, R. J. et al.: An evaluation of sterilization by autoclaves in dental offices. J. Dent. Res. IADR Abstracts, No. 1236, 1979.
7. Whitacre, R.J., Williams, B., Crawford, J.J., and Hooley, J. eds: *Dental Asepsis* (a 112 page color illustrated self-teaching manual), 1979, Stoma Press Inc., Seattle, or J. Crawford, UNC Dental School, Chapel Hill.

APPENDIX I

Questions not found on some patient history questionnaires:

	YES	NO
Do you (presently) have a cough, chest, or head cold or sore throat?	—	—
Do you (presently) have any lip or mouth sores?	—	—
Have you ever had or do you have liver disease, hepatitis, chronic diarrhea, or jaundice?	—	—
Have you had close contact at home or socially with anyone with hepatitis in the last six months?	—	—
Have you ever received blood products, kidney dialysis, or hemodialysis?	—	—
Have you ever had a positive test for hepatitis, or had your blood refused for donation to a blood bank?	—	—
Have you ever had to stay in a hospital or other institution?	—	—
Are you a health care professional exposed to hepatitis patients?	—	—
Have you recently had any unexpected weight loss and tiredness?	—	—
Have you recently had night sweats or a slight fever?	—	—

Parents of small children should be carefully interviewed because even infants can readily become carriers of parents' past diseases, such as hepatitis B.

APPENDIX II

Viral Hepatitis Information and Tests.[1,2,4,5,7]

Type A, infectious hepatitis is transmitted by feces. Eight weeks after symptoms subside, persons should no longer be infectious.

Type B, serum hepatitis is transmitted by blood, and apparently by saliva or semen. Carriers can remain infectious for years. Since about half of these carriers have had only subclinical infections they cannot give an accurate history of hepatitis infections. However, many can give histories of exposure or have had a positive test. Drug addicts, hemopheliacs, widely active male homosexuals, hemodialysis patients and children institutionalized with Downs Syndrome, have some of the highest carrier rates, but many other unsus-

pecting persons such as health care personnel have become carriers, including about 1% of general dentists and 2% of oral surgeons. Hepatitis B can also be a severe or fatal infection. About 1 in 200 patients are carriers.

Therefore, it is important to take the improved routine office precautions described to reduce risks of spreading hepatitis as well as other infections from unsuspected carriers.

Detecting carriers.

Tests are not available for Type A infectious hepatitis, and for non A, non B serum hepatitis that sometimes follows blood transfusions. So, detailed histories of exposure and other tests for liver enzymes can be important in deciding whether a patient may be ill with Type A hepatitis or be a carrier of non A non B hepatitis.

Any patient with *any* history of viral hepatitis, or likely to have had close contact with infected persons, should have a blood test for hepatitis B virus surface antigen before dental treatments, to see if they are a carrier, or they should be treated as though they are an infectious carrier. Hospitals with a blood bank can perform tests. These are referred to as "tests for hepatitis B surface antigen" (HBsAg). The same test is sometimes called a test for hepatitis B associated antigen (HAA). Tests for antibody to the hepatitis B antigen are also usually available.* (Presence of antibody shows past exposure and present immunity.)

*Contact your local hospital blood bank for information on availability of tests.

APPENDIX III

Treating Hepatitis B Patients and Carriers.[1,2,4,5,7]

Patients with active symptoms of hepatitis B should be treated in a hospital dental service, or dental treatments should be delayed until symptoms have subsided. Asymptomatic carriers are considered slightly less infectious, but maximum precautions should still be taken. Maximum precautions should be observed during their treatment as well as for patients who give a positive test for hepatitis B surface antigen (HBsAg-Pos) or hepatitis B associated antigen (HAA-Pos).

Procedures.

The dental unit should have smooth plastic hoses. Handpiece water lines should have check-valves installed. Air-water syringe tips should be removable for sterilization.

1. Wear a cloth gown that can be sterilized thereafter or a disposable paper gown.
2. Wear glasses with side shields that can be disinfected.
3. Wear double surgical gloves (i.e. 2 pairs) and wear a surgical tie-on mask.
4. Avoid procedures that have a high risk of injury to clinicians' hands, if possible.
5. Schedule the patient as the last one to be treated in that operatory for the day to permit adequate cleanup time thereafter.
6. Use part of a disposable plastic drop cloth for painting, to drape the entire chair. This may also be preferred for draping the unit.
7. Place a large plastic or aluminum foil drape over the bracket table, and supports for the handpiece, water syringe, and suction hose.
8. Operate hand controls through the covers.
9. Drape the lamp handles with aluminum foil or plastic film.
10. Wrap the air-water syringe handle with plastic film.
11. Cover other surfaces used for instruments with aluminum foil or plastic film, including the x-ray head and controls.
12. Carry out the treatment without touching undraped surfaces such as hoses.
13. Exposed x-ray plastic film packets can be submerged in iodine scrub (dilute 1:1 with isopropyl alcohol) for 30 min. Rinse the iodine solution off with clean hands and dry packet well before taking it to the dark room.
14. Prosthodontic devices, appliances, splints and rubber base impressions can be rinsed and immersed in iodine detergent for 30 minutes, before rinsing, and taking them to the laboratory with clean hands. Prepare stone models in the office and sterilize them with ethylene oxide.
15. After treatment, wrap all instruments and water syringe tip loosely in the draping material and place them in the sterilizer. Do not wash them until after they have been sterilized. Autoclave or gas sterilize the handpiece.
16. Other used items (e.g. tubes, bottles, used alginate impressions) that cannot be heat sterilized are sterilized in ethylene oxide or soaked in iodine-alcohol or are discarded.
17. All disposable covers are heat sterilized, or placed with other disposables into a plastic bag for incineration, or add about 10 ml of formalin, tie and discard safely.
18. Disinfect any surfaces touched that were not draped; use hypochlorite or iodine-detergent for 30 min., keeping the surfaces wet with disinfectant during that time.
19. Disinfect glasses in plain iodine scrub and wash face and hands with plain iodine scrub, lathering and rinsing 3 times.

APPENDIX IV

Conditions for Sterilization.

Steam autoclave:

15 min., 250°F, 15 lb., for bare or wrapped instruments
3 min., 270°F, 28 lb., for bare instruments
7 min., 270°F, 28 lb., for wrapped instruments

Dry Heat:

20 min. with instruments at 340°F or above*
30 min. with instruments at 320°F or above*
* an additional 20 to 90 minutes may be required to heat instruments to temperature. Temperature of instruments should be checked with a thermocouple if there is any doubt.

Harvey Vapor Sterilizer (MDT Corp.):

20-30 min. at 270°F. Use instruments unwrapped or use only bags and loads specified by the manufacturers.

Ethylene Oxide:

12 hours at room temperature

An ethylene oxide sterilizer that works overnight at room temperature costs about one-seventh as much as a small autoclave (e.g. Model AN 70, Anprolene Sterilizer, 2 gallon capacity, HW Anderson Products Co., 45 E. Main Street, NY 11771)

3 hours at 120°F

Ethylene oxide sterilizers that can sterilize in about 3 hours cost about 2 or more times as much as a small autoclave (available from several companies such as 3M Co., or AMSCO, through dental and hospital equipment distributors)

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PROCEEDINGS

PINEHURST, NORTH CAROLINA
MAY 16, 1979

The Board of Trustees of the North Carolina Dental Society met at 11:45 a.m. in the Board Room of the Pinehurst Hotel, Pinehurst, North Carolina.

Roll Call. Officers present: Robert J. Shankle, President; Mitchell Wallace, President-Elect; Walter S. Linville, Secretary-Treasurer.

Board of Trustees members present: J. Harry Spillman, William Mynatt, Clarence Biddix, Charles A. Reap, Marvin W. Aldridge, Jeffrey Mazza, Ralph D. Coffey.

Staff present: Joyce B. Rodgers and Ray Hornak.

Dr. Spillman called the meeting to order and asked Dr. Aldridge to give the invocation. He welcomed the new members, Dr. Mazza, Dr. Mynatt, Dr. Aldridge, and Dr. Coffey, observing that under the new *Bylaws* the Chairman of the ADA Delegation is an ex officio member of the Board.

Dr. Spillman then turned the meeting over to President Shankle, who announced the next Board meeting would be in Chapel Hill in June, and asked that each member turn in to the Central Office subjects for the agenda of that meeting. He mentioned the following subjects as examples: (1) Manpower Study report; (2) Workshop on denturism, based on the Oregon initiative experience; (3) Oral Health Care Public Forum, November 15; (4) Steering committee to make recommendations to the Board about developing a program to help alcohol and drug abusers within dentistry; (5) Development of guidelines for office sanitation; (6) District Officers' Conference December 8-9; (7) Report from Editor-Publisher Mazza about publication plans. Dr. Wallace mentioned possibly returning the House of Delegates to the Annual Session as an agenda item.

Dr. Shankle mentioned an invitation from Old North State Dental Society to have a representative attend its Annual Session in Myrtle Beach, S.C., June 14-17, and asked Dr. Wallace to represent NCDS.

ADA Dallas Meeting. Dr. Shankle asked Mrs. Rodgers to try to get the North Carolina delegation's rooms in the headquarters hotel on the same floor. He announced that the Atlanta Caucus of the Fifth District will be October 6-7, 1979.

HMO Seminar in Phoenix. There was discussion about the merits of sending a representative to a meeting on Health Maintenance Organizations to be held June 3 in Phoenix, Arizona. There was a consensus that we should not send anyone at that time.

Dr. Spillman said he thought an article in the *Gazette* on the subject of Independent Practice Associations would be of interest to the membership, explaining the feasibility study on the subject now under way.

Miscellaneous. Dr. Spillman read a letter from *Mediqual,* a review organization, asking for an advisory committee from dentistry. Dr. Shankle said he would comply.

Dr. Spillman read a letter from Chancellor Ferebee Taylor of the University of North Carolina in reply to his letter as President requesting consideration be given the Dental School in appropriations for salaries and renovation.

The American Fund for Dental Health had requested an increased contribution of $250. Dr. Linville moved to send the usual $100, because of budgeting already approved, seconded by Dr. Biddix and unanimously approved.

Mrs. Rodgers referred to a letter received from the Wilmington Dental Society inquiring about a publication entitled, "The Best Dentists in America." By consensus the Board agreed to discourage participation by North Carolina dentists and suggested an item be included in the *Gazette.*

There being no further business, the meeting was adjourned at approximately 2:00 p.m.

WALTER S. LINVILLE
Secretary-Treasurer

CHAPEL HILL, NORTH CAROLINA
June 23, 1979

The Board of Trustees met in the Dean's Conference Room, UNC School of Dentistry, June 23, 1979.

Roll Call. Officers: Robert J. Shankle, President; Robert W. Sugg, Vice President; Walter S. Linville, Secretary-Treasurer.

Members of the Board: J. Harry Spillman, Chairman; William Mynatt, Charles A. Reap, Norman B. Grantham, Jr., Marvin W. Aldridge, Jeffrey Mazza, Editor.

Staff Present: Joyce B. Rodgers, Executive Director.

Dr. Spillman called the meeting to order at 12:15 p.m. and asked Dr. Aldridge to give the invocation. He then called on Dr. Shankle, President, to give a brief orientation as introduction to the agenda.

Dr. Shankle welcomed the new members and thanked Dr. Spillman for accepting the position of Chairman of the newly constituted Board of Trustees. He said he had received several letters of thanks from members of the Legislature in response to his letter at the close of the Regular Session of 1979.

Mediqual Review. Dr. Shankle said he had received a request from Mediqual, a PSRO in Area 8, comprising portions of our Fourth and Fifth Districts, for the names of two dentists to serve on their review committee for dentistry. He said he had appointed Dr. P. W. Jessup of the Fourth District and Dr. H. L. Keith of the Fifth.

NCD-PAC. Dr. Shankle said he had talked with Dr. Harold Maxwell, Chairman of the North Carolina Dental Political Action Committee due to recent attitudes developing toward the PAC, and since Dr. Maxwell had been instrumental in getting the PAC started, he felt a statement from him to the Board would be welcome. Dr. Maxwell had assured Dr. Shankle that he will document all transactions of the PAC and do everything he can to preserve the integrity of the PAC that has been established. Dr. Shankle said he had reappointed Dr. R. B. Barden to the PAC Board, in line with the Bylaws of the PAC which provide the President of the North Carolina Dental Society the opportunity to appoint one member. Dr. Maxwell had also told Dr. Shankle that he plans to visit all the District meetings this fall to speak for the PAC and to continue to build it up. Dr. Shankle reported that Dr. Maxwell would like the PAC to join with the Legislative Committee in another legislative workshop again this year. Dr. Shankle said he understood Dr. Tom Reid, Legislative Committee Chairman, had already begun plans in that direction.

It was decided to delay further discussion on this subject until Dr. William Quarles, Secretary of the PAC, arrived.

H.E.L.P. Dr. Shankle outlined his plans to establish a committee to help dentists who have problems with alcohol and/or drug abuse. The committee is to be known as the Healthy, Effective Living Program. It is chaired by Dr. James Foust with Dr. Brevitt Hook and Dr. C. R. Vandervoort as members. The Plan is to work with the North Carolina Medical Society, which has an ongoing program. Dr. Shankle said he had discussed his plan with Dr. John Sowter, Secretary of the Board of Dental Examiners, who is very supportive of the project. Dr. Grantham moved support, seconded by Dr. Mynatt, and unanimously approved.

Committee on Sanitation. Dr. Shankle explained the new ad hoc committee he had appointed to make a study and prepare guidelines on sanitation in the dental office. Dr. Wayne Mohorn of Greensboro will be chairman, with Dr. James Graham, Dr. Kenneth Phillips, Dr. P. W. Jessup and Dr. Richard Hines as members. Dr. Shankle said he had suggested the committee use materials in the October, 1978 *Journal* of the ADA as reference, and had asked them to come up with a report to the Board of Trustees between now and January 1, the report to be sent on to the House of Delegates for approval. There was consensus of approval for this committee and its project.

There followed a discussion about how the problem should be handled when a complaint is received in the Central Office about unsanitary dental offices. Mrs. Rodgers said this type complaint is vary rare, but that she had received a few. The discussion centered around whether this should be a matter for the county health departments or whether there should be an attempt to keep such problems within the profession. Since the House of Delegates had rejected a section in the proposed amendments to the Dental Practice Act dealing with this subject, the Board concluded that unsanitary conditions in dental offices should be reported to the local county health department, with prior notice being given the dentist affected. The Executive Director was instructed, on motion by Dr. Aldridge, seconded by Dr. Linville, to follow this procedure when a complaint comes to the Central Office. The motion was approved with one dissenting vote by Dr. Grantham.

Manpower Study. Dr. Gordon DeFriese joined the meeting at 1:00 p.m. Dr. Spillman introduced him, saying the Manpower Study will be thoroughly reviewed and the final chapter redrafted on July 6, when the Committee on Dental Manpower Concerns meets. He asked Dr. DeFriese to give an overview and progress report to the Board.

Dr. Shankle said there are four steps contemplated in connection with the Manpower Study: (1) This meeting; (2) the committee meeting on July 6; (3) the August 25 all-day workshop, of which the morning section will be devoted to the Manpower Study — the leadership of NCDS at all levels participating; and (4) on Seminar Day December 7 Dr. DeFriese will be the principal speaker, when the general membership of the Society will be filled in on the study. Dr. Shankle moved Dr. DeFriese's report be accepted for information, Dr. Grantham seconded and approval was unanimous.

Report on Nitrous Oxide Problem. Dr. John Sowter, having joined the meeting at 2:00 p.m., was introduced to make comments regarding the recent legislative session. Before doing so, Dr. Sowter asked permission to read a draft of a letter from the President of the Board of Dental Examiners, Dr. James Graham, to Dr. Shankle replying to a letter from Dr. Shankle. In essence the letter from Dr. Graham stated that the Board is and always has been willing to negotiate with any group, particularly with a committee appointed by the President of the Society. Dr. Shankle then explained to the Board that he had appointed a committee to study the entire nitrous oxide question and come up with regulations agreeable to all. He then read a letter from Dr. Dennis Cook in reply to his letter written in like vein as that to the Board of Dental Examiners. Dr. Cook's letter essentially reiterated the position of the North Carolina Dental Legal Action Committee.

Legislative Summary. Because the proposed changes to the Dental Practice Act (H.B. 1151) had been put into a subcommittee for study during the interim between legislative sessions, the Board discussed various developments which had led to that vote in the Senate Finance Committee. Dr. Sowter related the efforts the ADA had made to explore its defeat in the Oregon initiative on denturism, even after having expended hundreds of thousands of dollars to help the Oregon Dental Association fight the measure. Dr. Sowter said Oregon dentists feel they lost the battle in 1972 when the first denturism bill came before their state legislature. They did not seek allies, felt their good record of health care would speak for itself, that the denturists would be rejected because they were untrained, etc. However, the public perceived the issue as economic and one of freedom of choice. Dr. Sowter urged that North Carolina, which is very similar to Oregon in many ways, take a lesson from the Oregon experience. He suggested dentists and their families attend public meetings, meetings of retired persons, etc., and become known as concerned persons. He urged involvement in the political process, getting personally acquainted with legislators and supporting their campaigns with personal funds as possible. He concluded by recommending that this message be carried to the membership of the North Carolina Dental Society.

Dr. Shankle said the programs now under way will be a good start. On August 25 there will be a workshop on the Oregon experience, using a study done by an independent organization as a textbook. The Denture Referral Service, now in a three-county pilot project, will go statewide in September. On November 15 we will have an Oral Health Care Public Forum, where representatives from consumer organizations, senior citizens' organizations, government, mass media, education, and others will meet to discuss the state of oral health in North Carolina. By that time it is possible a summary of the Manpower Study may be made public. Dr. Spillman thanked Dr. Sowter for coming and Dr. Sowter left the meeting at this point.

NCD-PAC. Dr. William Quarles, Secretary to the North Carolina Dental Political Action Committee, had joined the meeting. Dr. Spillman welcomed him and gave a quick summary of the previous discussion. He said the House of Delegates had directed the Policy Review Committee to study the relationship between NCDS and the PAC. He said he supports the PAC wholeheartedly so long as the PAC supports the official position of the NCDS.

Dr. Spillman then asked Dr. Quarles to make any statement he wished. Dr. Quarles said he had no statement, but was there to answer any questions the Board might have. Dr. Sugg asked whether we have any assurance that the PAC will support the position of the majority of the dentists of the state which is reflected in the actions of the North Carolina Dental Society. Dr. Quarles said the PAC's role is to collect dues from its members and to make contributions to political candidates who are friendly to dentistry. As to their actions as individuals, he said he had never acted in the capacity of a PAC board member when discussing issues with his legislators, and that he felt this was generally true of others. There was general discussion of the role the Society should or could play in concert with the PAC. Several members felt that the PAC should make its decision on support of candidates after consultation with the Legislative Committee of the Society as to which candidates have been most supportive of dentistry.

Dr. Shankle moved that an effort be made to have improved communication between the PAC, the Legislative Committee and the Board of Trustees, and on that basis the Board continue to support the PAC and direct that Society members be billed for PAC dues on membership statements as has been policy in the past. Dr. Sugg seconded. After further discussion Dr. Aldridge moved to table, seconded by Dr. Linville, and approved unanimously. This subject will be placed on the agenda for the next meeting of the Board of Trustees. In the meantime, a report from the Policy Review Committee may be forthcoming on this subject.

Radiology Regulations. Dr. Stephen R. Matteson, dentist member of the North Carolina Radiation Protection Commission, had supplied the Central Office with a copy of the proposed new regulations to be adopted by the Commission after public hearings some time this summer. Since several regulations on dentistry had been proposed, Dr. Matteson had been invited to come to the Board meeting to explain them.

The discussion following brought from Dr. Shankle a motion that Dr. Matteson be requested to send to the Central Office a list of the points affecting dentistry; that the Central Office get out a mailing to the membership on the subject, with a request that response be made to the Central Office on points of concern. The Central Office is to tabulate the responses by category and send them to Dr. Matteson as reflecting the thinking of the dentists in the state. Dr. Mynatt seconded and approval was unanimous.

Recording Dispensed Drugs. Dr. Shankle appointed a committee of two from the Board — Dr. Sugg and Dr. Aldridge — to study feasibility and recommendations on recording drugs dispensed in the dental office on patient records. The committee is to report back to the Board of Trustees.

Workshop on Manpower Study/Denturism. Dr. Shankle proposed August 25 as the date for a dual purpose workshop on the Manpower Study (morning) and Denturism in the afternoon. He mentioned several groups who should be invited: Members of the District Officers' Conference; graduates of our "PEP" program; the Public Relations Committee; the administration of the School of Dentistry; the Board of Dental Examiners, the Committee on Manpower Concerns and the Legislative Committee.

Oral Health Care Public Forum. Dr. Shankle gave a brief outline of plans for a public forum to be held November 15, supervised by the Committee on Public Relations. He said announcement of plans, format, etc., will be forthcoming in the near future.

Miscellaneous. Dr. Shankle urged those present who are going to the ADA meeting in Dallas to get their plane reservations early, and also said Mrs. Rodgers is going to make every effort to get rooms assigned to the delegates on the same floor with the headquarters suite.

Winston-Salem annual session plans are progressing and the scientific program promises to be outstanding.

The District Officers' Conference will be held December 8.

Dr. Shankle referred to a letter received from Mrs. Ruth Privette, immediate past president of the Auxiliary, with which she sent along a check to be turned over to the Foundation in the name of the Society and the Auxiliary representing proceeds from the scrap amalgam drive for last year.

Report of Editor-Publisher. Dr. Jeffrey Mazza, the newly appointed Editor-Publisher, had just returned from Michigan State University, where he had attended a Dental Editors' Seminar. Dr. Mazza reported his impressions of the seminar and outlined his plans for the upcoming issues of the *Journal.* He said the critiques of our *Journal* and *Gazette* were very complimentary. He mentioned his plan to have some scientific articles in addition to the Roster in the upcoming issue.

Dr. Shankle mentioned the desirability of having the masthead of the *Journal* reproduced in the *Gazette,* naming Dr. Mazza as Editor-Publisher of that publication. While there was no motion, there was consensus of agreement.

Public Information Program. Mrs. Rodgers distributed copies of a memorandum concerning the proposed public information program to be supplied by Mr. Bob Williams of Birmingham, Alabama. The program will consist of ADA TV spots — one sixty second and one thirty second — which will be distributed to sixteen TV stations around North Carolina, together with suitable art work and carrying the name of that station and the North Carolina Dental Society. These spots will be carried as public service announcements. Dr. Linville moved approval, seconded by Dr. Reap, and unanimously approved.

Denture Referral Service. Mrs. Rodgers reported that the pilot project in three counties has been successful and that a letter had gone out over Dr. Shankle's signature last week to all members, the first step to going statewide with the program, hopefully by September. She reported that the news media had been extremely cooperative, with announcements in prime time on at least two local television stations.

Donation in Memory of Dr. Daughtry. Mrs. Rodgers reported that Dr. Miriam Daughtry had died and that she had secured information about an appropriate donation in her memory. Dr. Spillman explained that Dr. Daughtry had been instrumental in developing curricula for dental auxiliary programs in the state community college system and that she had been a very good friend to the dental profession. He then moved that an appropriate donation be sent to the scholarship fund designated by the Altrusa Club of Raleigh in Dr. Daughtry's memory. Dr. Mynatt seconded and approval was unanimous.

New Business. Dr. Aldridge said his local dental society had expressed their hope that the Board would investigate fully the cost of rooms and other expenses connected with annual sessions well in advance of making a commitment to meet and also he would like some discussion in the future about the merits of combining the House of Delegates with the Annual Session again. He also said he would suggest that scientific portions of the annual sessions should be devoted to programs on philosophy and management rather than techniques, since there is a wealth of continuing education available throughout the year in the state.

Next Meeting. Dr. Shankle said the Board will meet during the District Meetings, probably in September.

There being no further business, the meeting was adjourned at approximately 5:30 p.m.

WALTER S. LINVILLE
Secretary-Treasurer

CHARLOTTE, NORTH CAROLINA
September 29, 1979

The Board of Trustees of the North Carolina Dental Society met at the Radisson Plaza Hotel, Charlotte, North Carolina, at 9:00 a.m., September 29, 1979.

Roll Call. Officers: Robert J. Shankle, President; Mitchell W. Wallace, President-Elect; Robert W. Sugg, Vice President; Walter S. Linville, Secretary-Treasurer.

Members of the Board: J. Harry Spillman, Chairman; William Mynatt, Clarence Biddix, Charles A. Reap, Norman B. Grantham, Jeffrey P. Mazza, Ralph D. Coffey.

Others present: Dr. Stuart Fountain, Dr. Raymond B. Warren, Dr. Harold E. Maxwell and Ms. Erma Thomas, President, N.C. Dental Hygienists Association.

Staff Present: Joyce B. Rodgers, Executive Director.

Dr. Spillman called the meeting to order and asked Dr. Shankle to take over temporarily. Dr. Shankle spoke briefly of the loss of Dr. D. F. Hord, former chairman of the Executive Committee, who had died September 26, and Mrs. Galen Quinn, wife of the former Editor, who had died that morning. Dr. Shankle asked for two minutes of silent prayer in memory of Dr. Hord and Mrs. Quinn.

Continuing Education Plans in North Carolina. Dr. Warren gave a brief resume of the status of continuing education in the state as discussed by his committee at its recent meeting. He said they felt it would be wise to decentralize continuing education away from Chapel Hill and take it out over the state, especially for auxiliaries. The present Council on Continuing Dental Education should be dissolved, with its present representatives from allied organizations serving as ex officio members of the NCDS Committee on Continuing Education. Dr. Warren said one of the most presing needs is a course in periodontal treatment which could be developed by the School of Dentistry.

In response to a question from Dr. Spillman, Dr. Warren said the present members of the Council on Continuing Dental Education have not been advised of the proposed plan to dissolve the Council, principally because action by the Board would be required to dissolve it. Dr. Wallace said the major reason for the action is that the Council is not required to report to the North Carolina Dental Society. He then moved that the Council on Continuing Dental Education be dissolved, that its role be absorbed by the NCDS Committee on Continuing Education, and that the representatives of ancillary organizations be retained as ex officio members. Dr. Shankle seconded and approval was unanimous.

IPA Feasibility Study. Dr. Stuart Fountain gave an update on progress of his study of Independent Practice Associations — a form of HMOs which lends itself to delivery of dental care in the private office. Referring to the State project on prepaid health care plans, Dr. Fountain said he thought the North Carolina Dental Society should request permission to sit in on development of the package of benefits but not request to be included at the present time. He then presented, in prioritized form, several points for consideration:

1. There should be a massive effort by the Society to convince industry of the benefits of dental insurance.
2. About 40%-50% of escalation of health care costs has been due to hospital costs. There is very little "economy" to be realized in connection with dentistry.
3. The HMO concept stresses preventive care, which dentistry has done for decades.
4. The HMO concept stresses access to care, which is not a major problem in North Carolina.
5. Since there is very little dental insurance in the state at this time, it must be given an opportunity to succeed or fail on its own merits.

Dr. Fountain said there were several means of going about the continuation of the feasibility study, among them visiting ongoing model plans such as Northwest Dental Care, Inc., in Seattle and the SAFECO plan, or exploring the feasibility of establishing our own IPA. Dr. Wallace asked about the role of Delta Dental Plan, suggesting that if it were fully supported we would have an IPA already. Dr. Warren volunteered to gather what information he could while in Seattle the first week in November.

Dr. Fountain submitted a tentative budget to be considered by the Board at budget time, to cover the next two years: Visits by two persons to California, Oregon and Washington State — $2,000; Consultants $3,000; Graduate student assistant at UNC $1,000; Legal Services $800; and Miscellaneous $200, or a total of $7,000.

Dr. Shankle moved the report be accepted, that the budget be approved tentatively and submitted to the Central Office Committee and the Budget Committee for 1980, to be funded if possible. Dr. Linville seconded and, after discussion, the motion was approved.

NCDPAC. At the June 23, 1979 meeting of the Board the subject of billing of PAC dues was tabled definitely to the next meeting, and during the interim it was expected that discussion with PAC leaders would help clarify the role the PAC should play in NCDS affairs. Dr. Harold Maxwell, Chairman of the PAC, reported that he had met with the special ad hoc committee appointed by President Shankle on August 25. He said he did not have a final report due to the fact that the PAC Board had not had a chance to meet. Because the changes in the *Bylaws* requested by the ad hoc committee would have to be voted upon by the Board of the PAC and participating members, this cannot be accomplished without a full meeting. He said he felt the PAC Bylaws can be changed to give the Board of Trustees of NCDS a more active role in the PAC. He said he had discussed this with Dr. Horton, chairman of the ad hoc committee, and that he felt the billing should be continued as in the past.

Dr. Linville moved the billing be continued this year for PAC dues, but unless major changes in the PAC Bylaws are made by the 1980 meeting of the House of Delegates, this practice will be reconsidered. Dr. Wallace and Dr. Grantham seconded and the motion was approved.

Per Diem Allowances for ADA Annual Session. Because of the sharp increase in hotel room rates ($95 double) for the Dallas meeting of the American Dental Association, Dr. Coffey asked that a temporary increase be approved in the per diem of ADA delegates and alternate delegates this year. He also asked that the surface travel allowance of 15¢ be increased to 18¢ per mile. After discussion Dr. Linville moved that the per diem allowance be increased to $120 to a maximum of eight days, round trip economy air fare, and 18¢ per surface mile for delegates and alternates to the ADA meeting in Dallas in October, 1979. Dr. Shankle seconded and approval was unanimous.

Legislation Update. Dr. Spillman introduced Mrs. Erma Thomas, President of N.C. Dental Hygienists Association, who had expressed interest in the status of legislation to change the Dental Practice Act which had been partially approved by the N.C. General Assembly in the 1979 Regular Session. Dr. Spillman asked Mrs. Rodgers to give a resume of developments since the Session adjourned in June. Mrs. Rodgers said she had been in contact with Sen. Marshall Rauch, Chairman of the Senate Finance Committee, and that Sen. Rauch had invited the Society to submit nominations from his committee members to form a subcommittee to consider H. 1151. She reported that she had sent Sen. Rauch four names from which she understood three members would be chosen: Sen. Kenneth Royall, Sen. Ollie Harris, Sen. Helen Marvin and Sen. William Creech. Dr. Spillman assured Mrs. Thomas that the Society is committed to the same position as that held during the 1979 Session and Mrs. Thomas responded with appreciation.

Legal Funds Re N.C. Use Tax Problem. The Fayetteville Dental Society had retained a local attorney to look into the State's drive to collect sales (use) tax on dental supplies bought by mail. Dr. Wallace had previously brought to the Board the Fayetteville Society 's request for assistance with legal fees, which would be about $3,500. The Fayetteville group had already paid the attorney a $1,000 retainer against this amount. During discussion it was stated that this attorney had been successful in having this tax rescinded for the orthodontists and since he is already familiar with the process, it seemed best to stay with him. Dr. Sugg moved that the President refer this subject to the appropriate committee and that the Board of Trustees pledge itself to a maximum of $3,500 for attorney's fees to bring this matter to a conclusion. Drs. Biddix and Wallace seconded and approval was unanimous.

PR Conference in Chicago November 12-13. It was decided to send Assistant Executive Director Ray Hornak to the Public Relations Conference at the ADA headquarters November 12-13, 1979.

Committee of Board to Study Recording of Drugs in Patients' Records. The Board of Trustees had designated Dr. Sugg and Dr. Aldridge to propose favorable or unfavorable reaction to having a record of all drugs administered to patients in their file in the dental office. Since Dr. Aldridge had resigned, Dr. Reap was designated to work with Dr. Sugg on this study.

Public Hearing on Nitrous Oxide. The ad hoc committee designated to study the nitrous oxide problem had announced a public hearing on October 28, 2:00 p.m. at the School of Dentistry. Dr. Shankle reminded the Board members of this date.

Transition of Insurance Coverage. Mrs. Rodgers reported that the Insurance Committee Chairman had requested her to explain to the Board the proposed change in overhead expense coverage for NCDS members from Mutual of Omaha to a package with the Crumpton Agency. The Committee had met the previous week and had voted to recommend the change, based on general dissatisfaction with the experience of the group in recent years. The Board inquired about guaranteed coverage for all now under the Mutual of Omaha policy. Mrs. Rodgers said she would ask Mr. Featherston, of the Crumpton Agency, to attend the afternoon session to answer questions. Subsequently Mr. Featherston arrived and assured the Board that no dentist now insured under the old program will be hurt by the transition. He said they will begin the necessary steps to take over immediately upon approval by the Board. Dr. Linville moved approval of the new insurance program, seconded by Dr. Reap and unanimously approved.

Mail Drop and Telephone Card for Orthodontic Society. At the request of

Dr. Kenneth Owen, Mrs. Rodgers asked the Board to consider the use of the Central Office address and telephone number by the North Carolina Orthodontic Society. It was the consensus of the Board that this type service should be offered to the various dental organizations. The plan is to have mail forwarded by the Central Office to the proper officer of the Orthodontic Society, and a separate telephone credit card will be used by them for their calls. Dr. Shankle moved that this plan be approved for one year on a trial basis, that it be re-evaluated at the end of the year, and that any expenses incurred be billed to the Orthodontic Society. Other specialty organizations are to be notified of the availability of this service. Dr. Biddix seconded and approval was unanimous.

Redistricting Discussion Schedule. Dr. Linville observed that the First and Fifth Districts are not in favor of redistricting. He said he felt the Board of Trustees should furnish leadership to arrive at an alternative, whereby the remaining three districts could work out an agreement which would be satisfactory to all. He said he felt the Second, Third and Fourth District Presidents should be contacted in an effort to begin the discussion.

District Meeting Registration Fees. Dr. Sugg said he felt the subject of registration fees at district meetings should be put on the agenda for discussion at the District Officers' Conference. There was no motion but a consensus of agreement.

Annual Session Meeting Dates. Dr. Wallace presented a petition signed by several members of the Fourth District Auxiliary requesting that annual sessions of NCDS not be held on Mother's Day.

Endorsement of Candidate for Secretary-Treasurer. Dr. Coffey said several members of the First District had requested Dr. Mynatt to run for Secretary-Treasurer of NCDS. Dr. Mynatt said he would ask the Central Office to carry the announcement in the *Gazette* at the proper time.

There being no further business, the meeting was adjourned at 1:30 p.m.

WALTER S. LINVILLE
Secretary-Treasurer

WINSTON-SALEM, NORTH CAROLINA
January 12, 1980

The Board of Trustees met at the Hyatt House, Winston-Salem, North Carolina, January 12, 1980.

Roll Call. Officers: Robert J. Shankle, President; Robert W. Sugg, Vice President; Mitchell Wallace, President-Elect; Walter S. Linville, Secretary-Treasurer.

Members of the Board: J. Harry Spillman, Chairman, William Mynatt, Charles Reap, Norman B. Grantham, Jr., Clarence Biddix, Wayne Anderson, Ralph Coffey, Chairman, ADA Delegates.

Staff Present: Raymond J. Hornak, Assistant Executive Director.

Dr. Spillman called the meeting to order at 10:00 a.m. and asked Dr. Mynatt to give the invocation. Dr. Spillman welcomed Dr. Wayne C. Anderson as the newest member of the Board, replacing Dr. Marvin W. Aldridge.

N_2O Committee Report. Dr. Spillman introduced Dr. Glen Hunt, Chairman of the Ad Hoc Committee to study rules and regulations for the use of nitrous oxide in the dental office. Dr. Hunt reviewed the Committee's work, mentioning a "public" hearing held in December with good participation. Dr. Reap then moved that the Board of Trustees accept the Committee's report in its entirety and Dr. Grantham seconded, with the addition of the Society's thanks to each of the Committee members.

During discussion of the motion, Dr. Sugg urged rejection of the motion on the grounds that the report was not in the best interest of the public. Drs. Wallace, Shankle and Linville all spoke in favor of the motion. Dr. Spillman called the question and the motion passed with two "no" votes.

Sterilization in Dental Offices. Dr. Spillman introduced Dr. Wayne Mohorn for his report on Sterilization in Dental Offices. He reviewed the 11 page "Suggested Guidelines for Asepsis" and recommended to the Board that the guidelines be accepted and presented as a resolution to the 1980 NCDS House of Delegates. Dr. Shankle moved, Dr. Wallace seconded, that the Board of Trustees accept the Committee report for information and disseminate this report to the membership of the North Carolina Dental Society. The motion passed unanimously. Dr. Shankle then added his thanks to the Committee and commendation for their hard work and further requested that this thanks and commendation be recorded in the official minutes of the Board.

Annual Session Report. At this point, Dr. J. A. S. Reynolds, Chairman of the Annual Sessions Committee, Dr. Robert Wilkinson, Dr. Larry Williams, and Mrs. Faye Marley and Ms. Pearl Ransom of the Central Office staff joined the meeting for their report on the Annual Session for 1980. Dr. Reynolds reviewed the plans for the Annual Session in Winston-Salem, including the budget and this year's theme, "Old Grounds — New Solutions."

Dr. Shankle moved that the Board accept the $26,000 budget proposed by the Annual Session Committee for 1980, severally seconded and passed unanimously.

Dr. Ken Owen entered the meeting and was introduced by Dr. Clarence Biddix as his future replacement from the Second District to the Board of Trustees. Dr. Owen thanked the Board for the opportunity to observe.

Political Action Committee Constitution. Dr. Spillman introduced Dr. Mitchell Wallace for a report on the new Political Action Committee Constitution. Dr. Linville suggested a change in Article II of the Constitution, the addition of a Section 6 under "Purposes," to read: "To support the official position of the North Carolina Dental Society." Dr. Linville also suggested a change in the Bylaws section, in Article II, Directors, the addition of a Section 6 to read: "Members can be removed by a two-thirds vote of the Political Action Committee Board of Directors." Dr. Shankle suggested that Article III-Officers and their Duties, be amended in Section 4, by changing the period to a comma, and adding the language: "and forward a copy of the minutes to the Chairman of the North Carolina Dental Society Board of Trustees." A final change in Article IV of the Bylaws was suggested by Dr. Shankle, to change the Parliamentary Procedure manual from Robert's Rules of Order to Sturgis Rules of Order.

Dr. Wallace moved that the North Carolina Dental — Political Action Committee suggested new constitution be accepted as amended. Dr. Grantham seconded and the motion passed unanimously. The Board ordered that the suggested changes to the Constitution be transmitted to Dr. Harold Maxwell as soon as possible.

NCDS 1980 Budget. Dr. Spillman asked Dr. Walter Linville, Secretary-Treasurer and Chairman of the Central Office Committee, to present the NCDS 1980 budget. Dr. Linville reviewed the highlights of the budget, including all major expenditures and income items, and reviewed some suggested changes he had recommended to gain more profitable interest on Society savings.

Dr. Linville recommended that the Board lower per diem allowance for ADA delegates to the Fifth Trustee District Caucus and ADA Annual Session and moved that the Dental Society cover ground transportation, parking, tourist airfare and $60.00 per diem for each delegate for Atlanta, and cover the same ground and air transportation and $100.00 per diem for the 1980 ADA Annual Session in New Orleans. Dr. Shankle seconded. After some discussion, Dr. Reap amended the original motion by changing the $100.00 per diem for New Orleans be raised to $120.00 per diem. Dr. Mynatt seconded. Dr. Spillman called the question and the Board voted four to three for the amendment to the original motion. The amended motion then passed with two dissenting votes.

Dr. Linville then reported on the Central Office Committee's review of the Society's publications. The Committee authorized two issues of the Journal, one to include at least the proceedings of the Annual Session, the second to be the roster of the North Carolina Dental Society; six issues of the North Carolina Dental Gazette, expanded to 12 pages; and the Friday Letter, to be published by the Central Office as needed and to be mailed to the entire membership.

Dr. Biddix moved approval of the Central Office Committee report on the budget, Dr. Shankle seconded and the motion passed unanimously.

Sunset Commission. Dr. Spillman asked Dr. Shankle to report on the latest developments by the North Carolina Governmental Evaluation (Sunset) Commission regarding the Dental Practice and Dental Hygiene Acts. Dr. Shankle reviewed the Society's testimony at the Commission's public hearing on January 4, then asked Dr. Sugg to comment. Dr. Sugg asked the Board for direction in helping the State Board of Dental Examiners to deal with a problem surrounding the definition of direct versus general supervision in the Dental Hygiene Act, a point of contention and misunderstanding with Commission members. The Board agreed that the Society should continue to support the position that hygienists should work under "direct" supervision and that "direct" supervision continues to mean that the dentist must be on the site where the hygienist is working and that the dentist should examine the results of all hygiene procedures. Dr. Sugg thanked the Board for its direction and told them he would work with the Board of Dental Examiners in developing further strategy.

National Qualifying Examinations. Dr. Shankle referred to a letter received from Dr. I. Lawrence Kerr, President of the ADA concerning differences between the ADA and the American Association of Dental Examiners concerning national qualifying examinations for dentists and hygienists. The Board directed that a letter be written to Dr. Kerr expressing North Carolina's support for the ADA position and urging a speedy resolution to differences between the two groups.

Medicaid X-Ray Submission. Dr. Shankle informed the Board that he had recently been contacted by Dr. Sutton of North Carolina Medicaid concerning the submission of x-rays by dentists. Hearing no objection from the Board, Dr. Linville, as Chairman of the Medicaid Peer Review program, said he would work with Dr. Sutton to resolve any difficulties. In addition, the Board reaffirmed its position that completion of a patient treatment plan is difficult if not impossible without the use of x-rays.

Honors and Awards. Dr. Shankle told Board members he had been contacted by the NCDS Committee on Honors and Awards recommending two members be honored at the 1980 Annual Session. Dr. Shankle moved that

awards be presented to Dr. S. L. Bobbitt and Dr. Charles W. Horton at the 1980 Annual Session. Severally seconded, the motion passed unanimously.

HSA Executives Meeting. Dr. Shankle informed the Board of a Southeastern Regional Dental Health Conference, cosponsored by the Florida Dental Association and the Southeastern Association of HSA Executives, Inc. Dr. Linville moved that Dr. Wallace and Mrs. Joyce Rodgers, NCDS Executive Director, be sent as representatives of the Society, severally seconded and passed unanimously.

Drug Records. The Board directed that discussion of drug prescriptions as a part of the patients permanent record be placed on the agenda for the next Board of Trustees meeting.

Dues Waiver. Dr. Grantham moved, Dr. Spillman seconded, that the Board recommend Dr. Marshall B. Corl for a dues waiver. The motion passed unanimously.

Dental School Funding. With the short session of the N.C. Legislature approaching to discuss the state budget, Dr. Spillman told Board members he had been contacted by Dr. John Stephens, Chairman of the NCDS Dental Education Committee, urging the Board to again meet with Dr. William Friday, University of North Carolina, to discuss increased funding for the UNC School of Dentistry. Dr. Shankle, Dr. Wallace and Dr. Linville will arrange for a meeting with Dr. Friday in the near future.

NCDS History. Dr. Biddix told the Board he had again been in contact with Dr. Burke Fox of Charlotte concerning the recording of the history of the Dental Society. The Board directed the Central Office to write a letter to Dr. Fox to compare information he has available with the materials in the central office. No funding decision was made at that time.

Committee Appointments, 1980-81. Dr. Wallace told the Board of his choices for Committee chairmen and committee appointments for 1980-81. Dr. Shankle moved that the Board approve Dr. Wallace's Council appointments, severally seconded and passed unanimously.

Next Meeting. No date for the next meeting of the NCDS Board of Trustees was set. Board members will be notified by mail at the appropriate time.

There being no further business, the meeting was adjourned at approximately 3:45 p.m.

WALTER S. LINVILLE
Secretary-Treasurer

CHAPEL HILL, NORTH CAROLINA
February 9, 1980

The Board of Trustees of the North Carolina Dental Society met in the Dean's Conference Room, UNC School of Dentistry, at 7:00 p.m., February 9, 1980.

Roll Call. Officers: Dr. Robert J. Shankle, President; Dr. Mitchell Wallace, President-Elect; Dr. Robert Sugg, Vice President; Dr. Jeffrey P. Mazza, Editor-Publisher.

Members of the Board: Dr. Norman Grantham and Dr. Wayne Anderson.

Guests: Drs. Michael A. Peele of Pittsboro and James H. Lehmann of Sanford.

Staff present: Joyce B. Rodgers, Executive Director.

Dr. Shankle presided in the absence of the chairman, Dr. Harry Spillman, who was absent due to inclement weather, as were the other members.

School of Dentistry Financial Needs. Dr. Shankle reported that he, Dr. Wallace, Dr. Sugg, Dr. Linville and Dr. James Harrell, Sr. had met that morning with President Friday of UNC regarding the financial needs of the School of Dentistry. Dr. Shankle said their visit was well received and President Friday was encouraging about prospects for the School.

Headquarters Site Committee. Dr. Shankle asked for approval of his appointing an ad hoc committee to search for a headquarters site for the Society, since the current lease will expire in January, 1981. Dr. Grantham moved that the appointment of such a committee be approved, seconded by Dr. Wallace, and passed unanimously.

Preliminary Agreement on Nitrous Oxide Regulations. Dr. Shankle said there had been a meeting that afternoon between the Board of Dental Examiners and a delegation of NCDS members (Dr. Shankle, Dr. Wallace and Dr. Glen Hunt) to discuss the recommendations of Dr. Hunt's committee regarding the nitrous oxide issue. A preliminary agreement was worked out. Dr. Shankle said unity is very important in the face of the Sunset Commission's activities and other outside developments, and that after the Board, the Board of Dental Examiners, the Nitrous Oxide Study Committee and the House of Delegates have thoroughly discussed and agreed on a settlement of the issue, he hoped it could be laid to rest. Dr. Shankle then called on Dr. Wallace to present the particulars of the proposed settlement.

Dr. Wallace went over a copy of the original Board of Examiners' proposed rules and explained deletions and additions. (A copy of the original rules, showing amendments, is attached to and made a part of these minutes.)

NORTH CAROLINA DENTAL SOCIETY
1980 BUDGET

INCOME		BUDGETED INCOME
State Dues & Penalties		$180,500.00
Annual Session		32,700.00
Publications		
Journal	3,000.00	
Directory	35.00	
Gazette	3,600.00	6,635.00
Interest		8,500.00
Expense Reimbursement		3,000.00
I. C. System		7,000.00
Oral Health Care Public Forum		2,000.00
Miscellaneous		1,000.00
TOTAL RECEIPTS		$241,335.00

EXPENSES		BUDGETED EXPENSES
Central Office		
Salaries & payroll taxes	68,441.00	
Employee Medical Reimbursement	2,400.00	
Christmas Bonuses	1,228.85	
Retirement	4,691.25	
Employee Insurance	3,500.00	
Insurance (Hazard)	321.00	
Rent	9,027.48	
Supplies	5,000.00	
Office machines maintenance	1,275.00	
Telephone	10,000.00	
Postage	7,500.00	
Travel-Ex. Dir. & Assist. Dir.	5,500.00	
Accounting Fees	1,200.00	
Legal Counsel	2,000.00	
Newsclipping Service	325.00	
Addressing Service	3,500.00	
Subscriptions	200.00	
Other Taxes	250.00	
Petty Cash	150.00	
Undesignated	1,400.00	$127,909.58
Annual Session		32,700.00
House of Delegates		1,500.00
Publications		
Journal	3,250.00	
Directory	3,250.00	
Gazette	13,000.00	19,500.00
Committees & Conferences		
Dental Care Programs	500.00	
(IPA)	5,000.00	
(Oral Health Care Public Forum)	2,000.00	
Board of Trustees	—	
Manpower Concerns	3,500.00	
Public Relations	8,202.92	
Legislative	4,000.00	
Travel & Educational Advancement	475.50	
DOC	750.00	
Undesignated	1,000.00	25,428.42
Reimbursement of Officers & Delegates		
Conferences	3,000.00	
Delegates	21,000.00	
Headquarters Suite	1,800.00	
President	2,000.00	27,800.00
Miscellaneous		
Car Expenses	1,000.00	
Contributions	300.00	
Peer Review Insurance	497.00	
Memberships	1,600.00	
NC Placement Service	100.00	
Undesignated	1,000.00	4,497.00
Capital Expenditures		
Equipment	2,000.00	2,000.00
TOTAL EXPENSES		$241,335.00

Dr. Wallace moved acceptance of these tentative changes in Subchapter 16-0, *Licensing — Dental Examiners — Rules and Regulations*, Dr. Sugg seconded and approval was unanimous.

Recommendations of the "Sunset" Commission. Dr. Shankle said he would choose another, larger forum for the purpose of giving proper thanks to Dr. Wallace and Dr. Sugg for the cooperation and help they had given him during the past several months during the Sunset Commission's activity. He said dentistry had won some very important points and lost some, and some are yet to be decided, but he felt the final recommendations of the Commission significant enough to be the prime reason for this special meeting of the Board of Trustees.

Dr. Shankle then went through the points contained in the Commission's reports on the Dental Practice Act and the Dental Hygiene Practice Act, asking for opinions on each point. Positions were arrived at by consensus rather than by individual motions and votes.

DENTAL PRACTICE ACT

1. *Conduct a study on denturism in Oregon* — Deleted at earlier meeting.
2. *Repeal prohibition against advertising* — Approved by Commission. Contained in H.B. 1151. Continue to support H.B. 1151.
3. *Licensure by credentialing* — Amended substantially. Now would allow Board of Dental Examiners to waive clinical examinations, based upon credentials from other states and upon the wisdom of the Board.
4. *Add two public members, appointed by the Governor, to the Board* — Approved by Commission. Support H.B. 1151, which calls for one public member, but this point not considered crucial enough to battle for our position.
5. *Add one hygienist, appointed by the Governor, to the Board* — Approved by Commission. Support H.B. 1151, which calls for hygienist to be elected by her peers.
6. *Repeal election of Board members and substitute appointment by the Governor* — Deleted by Commission after hearing testimony of NCDS and Board representatives.
7. *Limit the term of Board members to two terms of three years each* — Approved by the Commission. Support.
8. *Board to establish explicit standards of what constitutes acceptable clinical treatment for the most common dental procedures* — Approved by the Commission. NCDS should oppose on grounds this is an undertaking near-impossible to accomplish.
9. *Prohibit writing of prescriptions by dentists for non-dental purposes* — Deleted because present law covers.

DENTAL HYGIENE PRACTICE ACT

1. *Redefine the scope of practice for dental hygiene to allow hygienists to offer prophylactic and preventive services to the public with general supervision.* Approved by Commission.

   The Board of Trustees discussed this point in depth, and in fact this was the principal reason for calling this meeting. The definition of "general supervision" is crucial. After lengthy discussion the Board, on motion by Dr. Sugg, seconded by Dr. Wallace, approved the following as the tentative position of the North Carolina Dental Society, subject to comment by other Board members and subsequent decision by the House of Delegates:

   "General Supervision" — Acts are deemed to be under the general supervision of a licensed dentist when performed in the office of a licensed dentist wherein he is physically present at all times, but not necessarily in the treatment area, during the performance of such acts, and such acts are performed pursuant to his order, control and full professional responsibility, and are checked and approved by the licensed dentist before the patient upon whom such act has been performed departs from the office of said dentist.
2. *Allow for licensure by comity (credentialing) of dental hygienists from other states whose standards for certification are equivalent to North Carolina.* Approved by Commission. On motion by Dr. Sugg, seconded by Dr. Grantham, the Board agreed that the Society should support the same provision for hygienists as that proposed for dentists — to give the Board of Dental Examiners the option of waiving examinations but not to mandate licensure by credentialing.
3. *Repeal the prohibition against a dentist employing more than two hygienists at the same time.* Approved by Commission and the Board of Trustees.
4. The Board of Dental Examiners was "directed" to explore and report back to the Governmental Evaluation Commission by March 1, 1981, the possibility of expanding the functions of dental hygienists to include the following:
   (a) providing sealants and other recognized topical agents for the prevention of oral disease;
   (b) taking impressions for oral prosthetic appliances and other artificial devices and materials used to substitute for or repair human teeth.
   (c) place, carve, and finish restorative materials; and,
   (d) apply local anesthesia.

The Board discussed these proposed expanded duties at length, after which Dr. Anderson moved that the Board of Trustees recommend to the Board of Dental Examiners that they consider only preventive measures be included in any proposed expanded duties for hygienists, and that restorative procedures not be considered as potential expanded duties for hygienists. Dr. Grantham seconded and approval was unanimous.

Dr. Shankle thanked the members present and the visitors for their attendance and adjourned the meeting at 10:15 p.m.

JOYCE B. RODGERS, Executive Director, for

WALTER S. LINVILLE
Secretary-Treasurer

ADDENDUM TO MINUTES — BOARD OF TRUSTEES
February 9, 1980

NOTE: Following is an unofficial account of a tentative agreement arrived at between the Board of Dental Examiners and representatives of the North Carolina Dental Society on February 9, 1980. The original rule is printed with amendments, deletions and additions shown either by writing across the face of the paragraph the word, "DELETED" or by an explanatory note below the paragraph printed in italics, or by underlining in the case of additions. In the case of partial deletion of a paragraph, the deletion is shown by striking through, thus: ~~thus~~

****

LICENSING — DENTAL EXAMINERS 160 .0100

SUBCHAPTER 160 — USE AND REGISTRATION OF NITROUS OXIDE EQUIPMENT

SECTION .0100 — REGISTRATION AND REPORTING

.0101 REGISTRATION

Every dentist who administers or supervises and directs the administration of nitrous oxide for any purpose shall register the equipment used in such administration with the North Carolina State Board of Dental Examiners. All equipment presently in service shall be registered by January 1, 1979. All equipment subsequently placed in service shall be registered prior to usage. Registration shall be on a form provided by the board.

DELETE

Registration of equipment is accomplished through re-registration process each year.

History Note: Statutory Authority G.S. 90-28; 90-29 (b) (6); 90-48; 90-223; 150A-12; Eff. May 24, 1978.

NORTH CAROLINA ADMINISTRATIVE CODE 16-57

LICENSING — DENTAL EXAMINERS 160 .0100

.0102 REPORTING

Every dentist who desires to administer nitrous oxide for any purpose shall report to the board, on a form provided by the board, his formal education, other training, experience and qualifications regarding the administration of nitrous oxide. Reports shall be filed with the board by January 1 of each year. Any report subsequent to the initial filing by each individual shall include a summary of all formal, continuing education programs successfully completed.

DELETE

History Note: Statutory Authority G.S. 90-28; 90-29 (b) (6); 90-48; 90-223; 150A-12; Eff. May 24, 1978.

160 .0200

SECTION .0200 — QUALIFICATIONS OF DENTAL ASSISTANTS AND HYGIENISTS

.0201 EDUCATIONAL REQUIREMENTS

(a) Any dental hygienists, dental assistant I, or dental assistant II who monitors a patient under the influence of conscious sedation as defined in Rule .0202 of this Section must have completed a course(s) on conscious sedation of at least 7 hours. Such course must be approved by the North Carolina State Board of Dental Examiners.

(b) All dental hygienists and dental assistants I and II monitoring patients under the influence of di[illegible]us sedation, must have completed a course in cardio[illegible]tion.

DELETE

History Note: Statutory Authority G.S. 90-28; 90-29 (b) (6); 90-48; 90-223; 150A-12; Eff. May 24, 1978.

NORTH CAROLINA ADMINISTRATIVE CODE 16-58

LICENSING — DENTAL EXAMINERS 160 .0200

.0202 DEFINITION

Conscious sedation is defined as the use of drugs for controlling pain and/or apprehension without rendering a patient unconscious. ~~In the interest of the public welfare, those persons administering and monitoring inhalation~~

and intravenous sedation techniques should be well qualified in the administration of these drugs as well as the management of complications related to their use.

Induction of conscious sedation shall be done only by a dentist licensed in North Carolina.

Monitoring of patients under conscious sedation shall be done by only persons described in subsection .0201 (a). Monitoring shall mean observation of the flow of sedation agents, but shall not mean increasing the flow. The person authorized to monitor conscious sedation shall be permitted to cut back the flow or turn off the equipment.

History Note: Statutory Authority G.S. 90-28; 90-29 (b) (6); 90-48; 90-223; 150A-12; Eff. May 24, 1978.

.0203 APPROVED COURSE(S)

(a) Attendance in a course (or courses) of instruction in conscious sedation totalling a minimum of 7 hours should be required.

(b) Such courses of instruction should be directed by a qualified individual with a minimum of one year advanced education in comprehensive pain and anxiety control and with liberal clinical experience of at least four years duration, such individual to be approved by the North Carolina State Board of Dental Examiners.

(c) All personnel inducing or monitoring conscious sedation must be qualified in cardio-pulmonary resuscitation.

(d) All such persons must be trained in the use of nitrous oxide to the extent that they know:

(1) definitions and descriptions of physiological and psychological aspects of pain and anxiety;
(2) description of the states of drug-induced central nervous system depression through all levels of consciousness and unconsciousness, with special emphasis on the distinction between the conscious and unconscious state;

(3) review of respiratory and circulatory physiology and related anatomy;
(4) pharmacology of agents used in the conscious sedation techniques being taught, including drug interaction and incompatibility;
(5) patient monitoring, with particular attention to vital signs and reflexes related to consciousness;
(6) prevention, recognition, and management of complications and life-threatening situations that may occur during use of the conscious sedation techniques, including cardio-pulmonary resuscitation.

(e) Additionally, course content for programs in inhalation sedation with nitrous oxide-oxygen should include:
(1) description and use of inhalation sedation equipment;
(2) introduction to potential health hazards of trace anesthetics, and proposed techniques for elimination of these potential health hazards.

(f) Additional course content for parenteral conscious sedation programs should include:
(1) venipuncture, asepsis, armamentarium, and technique;
(2) prevention, recognition, and management of local complications or venipuncture;
(3) description and rationale of the technique employed;
(4) prevention, recognition, and management of systematic complications of intravenous sedation, with particular attention to airway maintenance and support of the respiratory and cardio-vascular systems.

DELETE DELETE

History Note: Statutory Authority G.S. 90-28; 90-29 (b) (6); 90-48; 90-223; 150A-12; Eff. May 24, 1978.

Report on North Carolina Dental Society

Raleigh, North Carolina
December 31, 1979

LYNCH, McMILLAN & ROBERTSON
CERTIFIED PUBLIC ACCOUNTANTS
RALEIGH, N. C. 27605

The Officers and Directors
North Carolina Dental Society

We have examined the balance sheets arising from cash transactions and related statements of income received, expenses paid and fund balances and changes in financial position arising from cash transactions for the General Fund and Relief Fund and balance sheets for the Capital Fund of the North Carolina Dental Society, for the years ended December 31, 1979 and 1978. Our examination was made in accordance with generally accepted auditing standards applicable to accounts maintained on the cash basis and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

Inasmuch, as the records are maintained on the cash basis of accounting, income earned but not received, prepaid income and expenses incurred but not paid, if any, are not reflected, as such, in the accompanying financial statements.

In our opinion, the aforementioned financial statements present fairly the financial position of the North Carolina Dental Society at December 31, 1979 and 1978, (cash basis), and the results of its recorded cash transactions for the years then ended on a consistent basis. The supplementary information in Schedules 1 and 2 has been subjected to the same auditing procedures and, in our opinion, are fairly presented when considered in conjunction with the basic financial statements taken as a whole.

Lynch, McMillan & Robertson

March 11, 1980

General Fund
Statements of Assets and Liabilities Arising from Cash Transactions

December 31, 1979 and 1978

Assets	1979	1978
Cash:		
Checking account	$ 9,082	71,177
Savings accounts and certificates of deposit	330,483	280,728
Total cash	339,565	351,905
Non-interest bearing loan receivable - Executive Director, payable in monthly installments of $100	-	1,200
Stock in Dental Service Plans Insurance Company, at cost	5,000	5,000
	$ 344,565	358,105
Liabilities and Fund Balance		
Liabilities:		
Unremitted dues	$ 162,071	175,979
Funds held for others	11,189	-
Total liabilities	173,260	175,979
Fund balance	171,305	182,126
	$ 344,565	358,105

Statements of Income Received, Expenses Paid and Fund Balance
Years ended December 31, 1979 and 1978

	1979	1978
Income:		
Dues and penalties	$ 163,418	150,563
Interest on savings	9,885	9,511
Annual session (net)	4,564	1,667
Sundry	8,006	7,507
	185,873	169,248
Expenses:		
Central office	127,851	99,237
Publications (net):		
Journal	6,696	7,996
Newsletter (Gazette)	7,532	3,999
Directory	3,154	5,629
House of Delegates	2,887	1,170
Committees and conferences	17,435	3,345
Reimbursements to Delegates and Representatives	27,217	19,180
Memberships	1,635	1,424
Contributions	270	200
Sundry	2,017	835
	196,694	143,015
Net income (loss)	(10,821)	26,233
Fund balance at beginning of year	182,126	155,893
Fund balance at end of year	$ 171,305	182,126

General Fund
Statements of Changes in Financial Position Arising from Cash Transactions

Years ended December 31, 1979 and 1978

	1979	1978
Sources of funds:		
Net income (loss)	$(10,821)	26,233
Collections on loan receivable - Executive Director	1,200	800
Unremitted dues and funds held for others	173,260	175,979
Total sources of funds	163,639	203,012
Uses of funds:		
Payment of prior year unremitted dues	175,979	183,436
Loan to Executive Director	-	2,000
Total uses of funds	175,979	185,436
Net increase (decrease)	(12,340)	17,576
Cash balances at beginning of year	351,905	334,329
Cash balances at end of year	$ 339,565	351,905

Relief Fund
Balance Sheets Arising from Cash Transactions

December 31, 1979 and 1978

Assets	1979	1978
Cash:		
Checking account	$ 1,607	3,699
Savings account	1,513	2,108
Investment account	1,049	330
Total cash	4,169	6,137
Account receivable, ADA Relief Fund	-	100
Marketable securities, at cost (market value $37,057; $38,591 in 1977)	40,539	40,539
	$ 44,708	46,776
Liabilities and Fund Balance		
Liabilities	$ -	-
Fund balance	44,708	46,776
	$ 44,708	46,776

Relief Fund
Statements of Income Received, Expenses Paid and Fund Balance

Years ended December 31, 1979 and 1978

	1979	1978
Income:		
ADA Relief Fund	$ 1,705	4,123
Interest:		
Savings	105	13
Corporate bonds	1,750	1,750
U. S. obligations	865	865
Notes and mortgages	879	745
Sundry	10	40
	5,314	7,536
Expenses:		
Relief grants	5,500	8,250
Funeral expenses of deceased indigent member	732	-
Audit	375	325
Investment expense	775	775
	7,382	9,350
Net income (loss)	(2,068)	(1,814)
Fund balance at beginning of year	46,776	48,590
Fund balance at end of year	$ 44,708	46,776

Relief Fund
Statements of Changes in Financial Position Arising from Cash Transactions

Years ended December 31, 1979 and 1978

	1979	1978
Sources of funds:		
Decrease in investment in notes and mortgages	$ -	3,000
Refund from ADA Relief Fund	100	-
Total sources of funds	100	3,000
Uses of funds:		
Net loss	2,068	1,814
Overpayment to ADA Relief Fund	-	100
Total uses of funds	2,068	1,914
Net increase (decrease)	(1,968)	1,086
Cash balances at beginning of year	6,137	5,051
Cash balances at end of year	$ 4,169	6,137

Capital Fund
Balance Sheets

December 31, 1979 and 1978

Assets	1979	1978
Central office furniture and equipment, at cost	$ 28,981	21,421
Liabilities and Fund Balance		
Liabilities	$ -	-
Fund balance at beginning of year	21,421	20,713
Additions (deletions):		
1 chair	176	
1 filing cabinet	158	
1 Minolta camera lens and filter	158	
1 tensor lamp	34	
1 IBM typewriter	955	
1 electric stapler	58	
4 office fans	70	
1 Kodak camera	156	
1 1979 Oldsmobile auto	5,795	
1 spotlight pointer		45
1 Minolta camera		480
1 secretary chair		115
2 desk lamps		68
Fund balance at end of year	$ 28,981	21,421

General Fund
Central Office Expenses Paid

Years ended December 31, 1979 and 1978

	1979	1978
Salaries and payroll taxes	$ 67,530	58,548
Rent	9,027	9,027
Supplies	5,870	4,069
Office machine maintenance	1,231	1,177
Telephone	7,934	7,405
Postage	7,536	4,027
Travel - Executive and Assistant Executive Directors	3,990	3,629
Hazard insurance	321	32
Taxes - other than payroll	343	287
Newsclipping service	340	275
Employee benefits:		
Medical reimbursement plan	1,739	-
Insurance	3,070	3,150
Retirement annuity	4,411	1,503
Audit	1,050	1,000
Legal counsel	4,688	1,511
Miscellaneous	1,211	2,889
Purchase of equipment	7,560	708
	$ 127,851	99,237

Relief Fund
Marketable Securities

December 31, 1979

Unit	Issue and Type	Cost	Market Value
	Corporate Bonds:		
$ 5,000	American Telephone & Telegraph Co. Debentures, 8.75%, due 5-15-2000	$ 5,185	4,107
$ 15,000	Southern Pacific Transportation Co. Equipment Trust, Series 66, 8.75%, due 12-15-1981	15,468	15,000
		20,653	19,107
	U. S. Obligations:		
$ 2,000	7% Treasury Notes, due 11-15-1983	1,995	1,750
$ 10,000	Twelve Federal Land Banks Bond, 7.25%, due 7-20-1987	9,891	8,200
		11,886	9,950
	Notes and Mortgages:		
$ 8,000	General Motors Acceptance Corporation Variable amount notes	8,000	8,000
		$ 40,539	37,057

North Carolina Dental Society

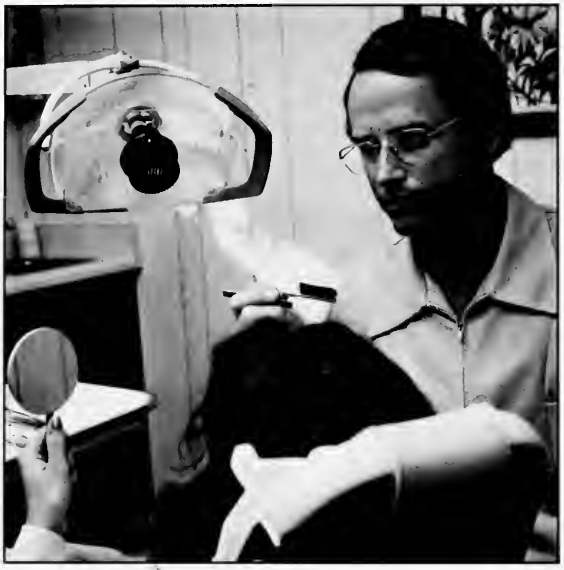
May 11-13, 1980

124th Annual Session

Hyatt Regency Hotel/Benton Convention Center

Winston-Salem, N.C.

CONVENIENCE



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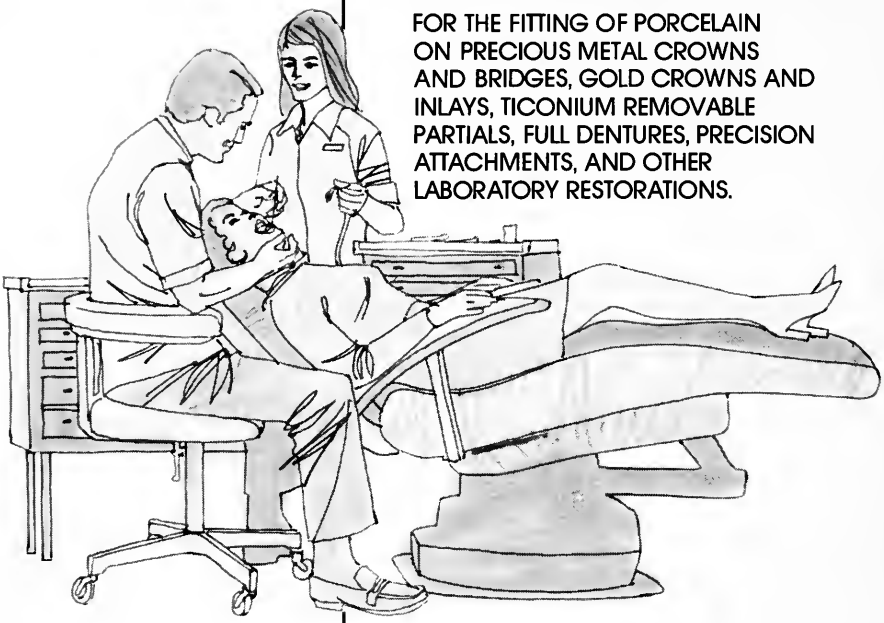

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Dr._____

Street_____

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